# **MTurboDelay**



# Devices

This plugin can be though of as a collection of plugins listed on the left side of the GUI. Select a device simply by clicking on it. Its GUI will appear on the right side. Compared to other MeldaProduction plugins it doesn't have any **edit screen**, so you cannot edit the internal functionality, which may be extremely complex. If you are interested in complex editing, please check **MXXX**, the ultimate modular **effect**.

### Global 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 button loads the previous preset.

#### Right arrow

Right arrow button loads the next preset.

# Randomize

Randomize button loads a random preset.



Randomize button (with the text 'Random') generates random settings. Generally, randomization in plug-ins works by selecting random values for all parameters, but rarely achieves satisfactory results, as the more parameters that change the more likely one will cause an unwanted effect. Our plugins employ a smart randomization engine that learns which settings are suitable for randomization (using the existing presets) and so is much more likely to create successful changes.

In addition, there are some mouse modifiers that assist this process. The smart randomization engine is used by default if no modifier keys are held.

Holding **Ctrl** while clicking the button constrains the randomization engine so that parameters are only modified slightly rather than completely randomized. This is suitable to create small variations of existing interesting settings.

Holding **Alt** while clicking the button will force the engine to use full randomization, which sets random values for all reasonable automatable parameters. This can often result in "extreme" settings. Please note that some parameters cannot be randomized this way.

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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

Panic

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 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.

### Sleeping

Sleep indicator

Sleep indicator informs whether the plugin is currently active or in sleep mode. The plugin can automatically switch itself off to save CPU, when there is no input signal and the plugin knows it cannot produce any signal on its own and it generally makes sense. You can disable this in Settings / **Intelligent sleep on silence** both for individual instances and globally for all plugins on the system.

# **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.



AGC button enables or disables the automatic gain control - the automatic adjustment of the output volume such that it matches the input volume. Human hearing is very adaptable. In fact differences in loudness, for example when loading a preset, may go unnoticed and instead be perceived by the listener as "better sounding", leading to a misjudgement. This feature should prevent this effect, thus allowing the listener to focus on the sonic qualities only.

AGC works by measuring input and output loudness, and then compensating for the difference while also taking into account any induced latency. The loudness measurement follows the ITU and EBU specifications with an RMS of 400ms, meaning that the reaction time is 400ms. This is very important, as you should be aware that AGC needs time to properly adjust after any change of settings. Also note that this is a nonlinear operation. It may cause some distortion due to the long measurement time. It should be negligible though.

AGC makes sense in most applications including reverberation and equalization for example. However, in some cases it can work against the plugin. A simple example of this is a tremolo, where the plugin manipulates output volume. If the tremolo rate is slow enough, say 1Hz, it makes the period longer than the actual AGC measurement time. So whenever the tremolo changes audio level, the AGC starts compensating for it. This can of course be used creatively, since AGC will always be a little "late", but it is definitely not a desired outcome in normal use.

Another example of this is compression. When used with short attack and release times, AGC can effectively compensate for the attenuation of the compressor. However when the attack and release times are higher than 100ms, the compressor's reaction time becomes too slow, and in conjunction with AGC, severe pumping can occur.

As a general rule of thumb as for all audio processing tasks, use it only if you know you need it. AGC is a powerful tool that can make your workflow easier, but it can also be damaging.

## Set Set

Set button uses the AGC (automatic gain compensation) processor to calculate the ideal output gain to ensure that the output audio loudness is equal to the input level. To use it, simply enable playback in your host and click the button. The plugin's output gain will be adjusted to match the input and output levels as closely as possible.

If the AGC is already enabled, the change will be instant and you can disable the AGC afterwards. Typically you will browse presets, generate random settings etc. During the entire time you will have AGC enabled to prevent you from experiencing different output loudness levels. When you find a sonically ideal setup, you simply click the Set button to set the output gain automatically and disable the AGC as you won't need it anymore.

If the AGC is not already enabled, clicking the Set button displays a window with progress bar for a few seconds, while the plugin temporarily enables AGC and analyses input and output of the plugin. After that the AGC is disabled again.

To get the best results, you should feed the plugin with some "universal" signal. If you are processing a specific instrument, play a typical part, a chorus in case of vocals for example. If you are creating presets designed for general use, white/pink noise may be the best signal to use.

#### Limiter

#### Limiter

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

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

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



#### A-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

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.

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#### 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).

# 'n

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

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Reload

Redo button reverts the last undo operation.



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.

#### Reload

Reload button reloads the device and sets all non-locked controls in the current device to their default values. It may be useful, since the plugin stores current settings when switching between the devices, hence this button is a quick and easy way to get the defaults for the devices, before you changed them. If you want to reload all parameters for the device, you must unlock the Easy screen locks or disable them all by turning off the On/Off button in the Global Locking panel in Edit mode.



Device selector Device selector lets you choose from the predefined devices (previous 'active presets'). These are different from normal presets as they can actually have Easy-mode controls available via knobs or buttons. Click on an device to load it. Check out our video tutorials for information about creating your own devices. Although you cannot put your own devices into this selector, you can still save them as normal presets and on loading they will work in the exactly same way.

When browsing the devices, the plugin stores the control values (multiparameters). It doesn't store the full settings, only the multiparameters, so that if you switch between the devices, your settings will be kept intact, unless you switch to edit screen and perform some advanced editing, in which case it is recommended to use the A-H presets to store your work.



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

# Tap my pitch up

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Tap my pitch up is a sixteen-tap spectral delay. It features control over pitch, frequency shifting and formant on a per-tap basis. The spectral processing is inside a feedback loop making the pitch effect increase with each pass-through.

#### Device 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

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Left arrow button loads the previous preset.

## **Right arrow**

Right arrow button loads the next preset.

#### • Randomize

Randomize button loads a random preset.

## 0.00 dB

Delay gain controls the volume of the delay signal.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

#### 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

#### 25 ms

#### Resolution

Resolution defines how accurately the processor can analyze the audio. The lower the resolution, the more CPU is needed, but also more of the time domain characteristics are preserved, hence potentially higher audio quality.

#### 2048

#### **Buffer size**

Buffer size controls the block size used for processing. This plugin performs processing 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, the plugin 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 (but this is not always the case!), at the expense of greater CPU cost and increased latency. Also note that with some settings having too high a buffer size will produce a sort of time-smearing, ambient-like sound quality. Also note that this value is assigned only for sampling rates around 44-48KHz, the engine may readjust it for higher sampling rates in order to get similar audio results.



Dry/Wet





#### **Formant**

Formant controls the formant of each delay tap.

Randomize creates random values for all taps.

#### Frequency

Frequency controls the frequency shift of each delay tap.

Randomize creates random values for all taps.

#### Level

Level controls the volume of each delay tap.

#### **Stepped / Continuous**

Stepped / Continuous button lets you switch between 2 editor modes - stepped, which resembles the vintage analog gear by providing only a limit set of values, and continuous, which is traditional for digital user interfaces. There is absolutely no difference in sound, however for some people it is easier to have limited set of options to choose from, hence they prefer stepped mode. Others enjoy the full capacity of the digital processing, hence they prefer continuous mode.

#### **BBD**



Shape



Shape selects the LFO shape for the vibrato modulation.



Rate Controls the speed of the vibrato.



Depth controls how much vbrato there will be.



Harmonics Harmonics controls the amount of even harmonic.



Drive controls the amount of saturation.



Low controls the gain of a low shelf EQ.



Mid controls the gain of a mid peak EQ.



High controls the gain of a high shelf EQ.

0.00%

🗾 Width

Width creates an offset in one of the channels to make the sound wider. This uses the haas effect.

350 ms

Delay controls the delay time.





Length controls the note value of the delay time, this is synced to the host tempo.



#### Sync 🔤

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.



Release controls how fast the ducked signal will return to it's normal volume.



### Ducking

Ducking reduces the level of the delay when the dry signal is present. This is a great way to stop the delay from overwhelming the sound and lets it cut through a mix more clearly.



#### Ping/Pong

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.



Min Repeats Repeats controls how long the tail of delays last. It is very similar to feedback, however it also changes some other processors such as filter and saturation.

# Digital



## 0.00 dB

Delay gain controls the volume of the delay signal.

#### 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.



Shuffle Shuffle simulates shuffling by offseting every other delay.



### Ducking

Ducking reduces the level of the delay when the dry signal is present. This is a great way to stop the delay from overwhelming the sound and lets it cut through a mix more clearly.



#### Release

Release is the amount of time it takes for the ducked signal to return to it's normal volume.



Dry/Wet controls the mix of the delayed signal with the dry signal.



HP controls the frequency of the high-pass filter.

Low



Low controls the gain of a low shelf EQ.



LP controls the frequency of the low-pass filter.



High controls the gain of a high shelf EQ.



Mid controls the gain of a mid peak EQ.

Bass

#### 0.00 dB

Bass controls the amount of bass in the reverberated signal.

#### 0.00 dB Treble

Treble controls the amount of treble in the reverberated signal.



Length Length controls the reverb time.



Dry/Wet Dry/Wet controls the amount of reverberated signal that will be mixed with the dry signal.



Shape selects the shape of the LFO used for the vibrato effect.



Rate controls the speed of the vibrato.



Depth Depth controls the amount of vibrato.



Speed controls the buffer size for the reverse effect.

center

Panorama Panorama controls the stereo position of the delay.



Width creates an offset in one of the channels to make the sound wider. This uses the haas effect.

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.

# Length

## Straight 1/16

Length controls the note value of the delay time, this is synced to the host tempo.



#### Repeats

Repeats controls how long the ta filter and saturation.	il of delays last. It is very	v similar to feedback, how	vever it also changes som	e other processors such as
CLEAN	DERN	TAGE	D-FI BRO	KEN Style
Style controls the character of the	e delay.			
Double dribble				
	ble Dr	SERIAL	DRY/WET DELAY IN 0.00 d	OUTPUT 0.00 dB PUT DELAY GAIN 3 0.00 dB
FEEDBACK	GAIN PAN	N FEEDB.	ACK DELAY B GAIN	ENABLE PAN
SYNC Straight 1/8 HP Off		L/R Dotted	1/4 250 ms Off Of	
SYNC F Straight 1/16 A/B LF	PRE-DELAY ENAB			ENABLE 0.00 dB
Slow	Fast	Slow Fast mooth Stepped	Slow Smooth	Fast
TRANSIENT ATTACK GAIN 0.00 dB RESOLUTION 20 ms	DUCKER STRENGTH COD THRESHOLD -48.0 dB SPEED 25.0%	DISTORTION DRY/WET ODD DRIVE 0.00 dB STYLE Default	UNISON DRY/WET OOICES 4.00 FORMANT	FILTER FREQUENCY TYPE LP 12 Q 0.00%

0.00 dB Delay gain Delay gain controls the volume of the delay signal.

## 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

## 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

## Parallel/Serial

Parallel/Serial controls the balance between parallel and serial processing. In parallel the signal it split into 2, delay A and B each process seperately and then the 2 signals are mixed back together. In series the signal is first processed by delay A and then by Delay B.



Formant controls the formant of the unison voices and can be used as a sort of brightness control.



#### Voices

Voices selects how many voices will be generated by the unison.



## Dry/Wet

Dry/Wet controls the mix of the unison signal and the dry signal.

#### Default

Style Style selects which type of distortion will be used.

Drive

Speed

Threshold

#### 0.00 dB

Drive controls how much signal is fed into the distortion, therefore it controls the amount of distortion.



#### Dry/Wet

Dry/Wet controls the mix between the distorted signal and the dry signal.

#### 25.0%

Speed controls the attack and release times of the dynamic processor.

#### -48.0 dB

Threshold controls the detection level for the dynamic processor.

#### DUCKER

Ducker Ducker reduces the level of the delay when the dry signal is present. This is a great way to stop the delay from overwhelming the sound and lets it cut through a mix more clearly.



#### Strength

Strength controls how much the level will be reduced.

#### 20 ms

Resolution Resolution controls the length of the transient.

#### 0.00 dB

Gain

Gain is a basic gain, which can be used to compensate for the change in level due to the transient processor.

#### TRANSIENT Transient

Transient is a transent shaper that can be useful to make your delays punchier or softer.



#### Attack/Sustain

Attack/Sustain controls the balance between the transient and tail volume.

#### 0.00 dB

Gain Gain controls the volume of the pre-delay.

Sync

#### SYNC

Sync activates sync mode where the pre-delay time will be in musical values and synced to the host tempo.

## Length

Straight 1/16

Length controls the note value of the pre-delay time, this is synced to the host tempo.

1000 ms Delay

Delay controls the pre-delay time.

#### 0.00 dB

Gain Gain controls the volume of the pre-delay.

#### SYNC Sync

Sync activates sync mode where the pre-delay time will be in musical values and synced to the host tempo.

## Length

Straight 1/16

Length controls the note value of the pre-delay time, this is synced to the host tempo.

#### 1000 ms

Delay Delay controls the pre-delay time.

#### SWAP L/R

Swap L/R Swap L/R inverts the left and right channels.

## PING-PONG

**Ping/Pong** Ping/Pong is a classic delay effect that alternates each delay from channel to channel.

#### SYNC Svnc

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.

## Off

LP controls the frequency of the low-pass filter.

LP

#### Off HP

HP controls the frequency of the high-pass filter.

# Length

Dotted 1/4

Length controls the note value of the delay time, this is synced to the host tempo.

#### 250 ms Delav

Delay controls the delay time.



Pan controls the stereo position of the delay.



Gain controls the volume of the delay.



Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.

#### SWAP L/R Swap L/R

Swap L/R inverts the left and right channels.

# PING-PONG Ping/Pong

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.



Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.



LP controls the frequency of the low-pass filter.

LP

Off HP

HP controls the frequency of the high-pass filter.

# Length

Straight 1/8

Length controls the note value of the delay time, this is synced to the host tempo.



Delay Delay controls the delay time.



Pan Pan controls the stereo position of the delay.



Gain controls the volume of the delay.



Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.

# Echo man



# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

LP

## Off

Off

LP controls the frequency of the low-pass filter.

#### \_\_\_\_ НР

HP controls the frequency of the high-pass filter.



Rhythm is a step sequencer that controls the volume of the delay signal. It can be used to create rhythmical motion to the delays.



## 🛃 Even/Odd

Even/Odd controls the even and odd steps in the step sequencer. It can be used to make the delay feel more on beat or off beat.



## Push/Pull

Push/Pull controls if the delays will be exactly on the beat or pushed/pulled later/earlier.



#### Shuffle/Swing

Shuffle/Swing simulates shuffling by offseting every other delay.



#### 🚮 Ping/Pong

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.



## Straight

Type controls the note type of the delay time, this is synced to the host tempo.

## Length



Length controls the note value of the delay time, this is synced to the host tempo.

## 0.00% Feedback

Feedback controls how much of the effect will be fed into the feedback loop.

## 63.25 Hz Frequency

Frequency controls the frequency of the EQ band.

#### 0.00% Gain

Gain controls the gain of the EQ band.



#### Low Shelf

Low Shelf is an adjustable low-shelf EQ used to shape the character of the delay.

#### 0.00% Feedback

Feedback controls how much of the effect will be fed into the feedback loop.

#### 632.5 Hz Frequency

Frequency controls the frequency of the EQ band.

### 0.00% Gain

Gain controls the gain of the EQ band.

## Mid Peak

Mid Peak is an adjustable mid-peak EQ used to shape the character of the delay.

#### **0.00%** Feedback

Feedback controls how much of the effect will be fed into the feedback loop.

#### 6325 Hz Frequency

Frequency controls the frequency of the EQ band.

0.00% Gain

Gain controls the gain of the EQ band.



Mode selects which preset will be used. Digital - A clean, standard delay. Lo-Fi - 8 bit with rate reduction. Memory - Influenced by the Memory Man delay. Pedal - Influenced by Boss DM-2 delay pedal. Plex - Influenced by Echo Plex tape delay. Ray - Influenced by TelRay tape delay. Space - Influenced by Roland Space Echo. Tape - A generic tape delay sound. Tube - A generic tube distortion. Punch - A puchy sound from dynamic expansion. Wide - Gets increasingly wider as the stereo widening feeds into the loop. Swarm - Hundreds of copies of the taps make a hugh swarm sound.



#### Character feedback

Character feedback this feedback is for the character page, it determins how much of the FX are fed into the feedback loop.



## 🛃 Delay feedback

Delay feedback controls the amount of signal that gets fed back in to the delay's input.



## 🔜 Width

Width offsets the delay in one channel to make the sound wider.

# Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



## 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

## 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

0.00 dB Output gain

Output gain controls the final output volume of the plugin.



## Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



#### Shuffle

Shuffle simulates shuffling by offseting every other delay.



#### Dry signal

Dry signal controls the level of the dry signal. This signal will not have any delay, but will still be processed by the effects.



#### Repeats

Repeats controls how long the tail of delays last. It is very similar to feedback, however it also changes some other processors such as filter and saturation.

#### 0.00%

Width

Width controls the amount of delay offset in one of the channels.

Panorama

#### center

Panorama controls the stereo position of the delay.



#### Ping/Pong

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.

#### Straight 1/8

Length controls the note value of the delay time, this is synced to the host tempo.

#### 350 ms

Delay

Length

Delay controls the delay time.



#### Sync

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.

## L/R Offset

L/R Offset offsets the phase of the LFO by 180 degrees in one channel.

### Sync

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.

#### 0.00%

Drive Drive controls the filter distortion amount.

Rate

#### 1.000 Hz

Rate controls the LFO frequency therefore the speed of the modulation.

#### 1/4 Length

Length controls the note value of the delay time, this is synced to the host tempo.

#### LP 24 Type

Type selects the type of filter to be used.

#### 30.0%

#### Resonance

Resonance controls the amount of resonance in the filter.

#### 0.5000 Hz

Mod rate Mod rate controls the speed of the vibrato.

#### 0.00 dB

Mid Mid controls the gain of a mid peak EQ.

#### 0 ms

Mod depth

Mod depth controls the depth of the vibrato effect.

Sine

#### Mod shape

Mod shape selects the lfo shape for the vibrato.

#### 0.00 dB High

High controls the gain of a high shelf EQ.

#### 0.00 dB

Low Low controls the gain of a low shelf EQ.

Copies

Duration

#### 10.00

Copies selects how many duplicate grains there will be.

#### 707 ms

Duration controls the random delay time for the copied grains.

#### 0 ms

**Pre-delay** Pre-delay controls the amount of time before the grains start.

#### 0.00 Pitch

0.00%

0.00%

Pitch controls the pitch of the grains.

#### 0.00

Random

Random controls the random pitch value for each grain.

#### 100.0% Width

Width controls the random pan position of each grain.

#### **Release shape**

Release shape controls the curvature of the release shape.

#### Attack shape

Attack shape controls the the curvature of the attack shape.

#### -60.00 dB **Threshold off**

Threshold off controls the maximum detection level for the envelope.

## Threshold on

Threshold on controls the minimum detection level for the envelope.



### Envelope

-40.00 dB

Envelope is a volume envelope that fades in and out the delay signal when it's level is within the thresholds.



Mode Mode controls the type of saturation.



Drive controls the amount of saturation.



Frequency controls the central frequency of the filter.



Range Controls the depth of modulation.



Grain size Grain size controls the length of each grain.



Wet/Dry Wet/Dry controls the mix of the granulated signal with the dry signal.



Release controls the release time of the envelope.



Attack Controls the attack time of the envelope.





Delay gain
Delay gain controls the volume of the delay signal.

Output gain
Output gain controls the final output volume of the plugin.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.



Dry/Wet controls the mix of the delayed signal with the dry signal.

#### 2000 Hz Mid/High

Mid/High controls the crossover frequency that seperates the mid and high bands.

#### 200.0 Hz

Low/Mid Low/Mid controls the crossover frequency that seperates the low and mid bands.



High gain controls the volume of the high band.



Mid gain

Mid gain controls the volume of the mid band.



#### Low gain Low gain controls the volume of the low band.



Range controls the depth of modulation.



Range Range controls the depth of modulation.



Range Range controls the depth of modulation.

Sine

Shape Shape selects the shape of the LFO.



Speed selects the note length of the LFO.



Shape Shape selects the shape of the LFO.



Speed Speed selects the note length of the LFO.

> Sine Shape

Shape selects the shape of the LFO.

## Speed

Speed selects the note length of the LFO.



Width Width creates an offset in one of the channels to make the sound wider. This uses the haas effect.

# **Ping/Pong**

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.



Delay controls the delay time for the high band.



Width creates an offset in one of the channels to make the sound wider. This uses the haas effect.

# Ping/Pong

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.



Delay controls the delay time for the mid band.

**Ö** width

Width creates an offset in one of the channels to make the sound wider. This uses the haas effect.



Ping/Pong

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.



Delay Delay time for the low band.

<sup>1/2</sup> Lag

Lag controls the amount of time before the feedback happens.

<sup>1/2</sup> Lag

Lag controls the amount of time before the feedback happens.



Lag controls the amount of time before the feedback happens.

# <sup>1/2</sup> Lag

Lag controls the amount of time before the feedback happens.

## <sup>1/2</sup> Lag

Lag controls the amount of time before the feedback happens.

## <sup>1/2</sup> Lag

Lag controls the amount of time before the feedback happens.



Mid controls the amount of high band signal that gets fed back in to the mid band input.



Low controls the amount of high band signal that gets fed back in to the low band input.



High controls the amount of mid band signal that gets fed back in to the high band input.



Low controls the amount of mid band signal that gets fed back in to the low band input.



High controls the amount of low band signal that gets fed back in to the high band input.



Mid controls the amount of low band signal that gets fed back in to the mid band input.



Feedback controls the amount of high band signal that gets fed back in to the high band input.



#### Feedback Feedback controls the amount of mid band signal that gets fed back in to the mid band input.



#### Feedback

Feedback controls the amount of low band signal that gets fed back in to the low band input.



# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain is the last thing in the signal chain and controld final output volume of the plugin.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.





Length shrinks or stretches the length of the impulse.



Width controls the stereo widening of the convolution.



Character changes the pitch and balance between 2 impulses.



Tone uses an EQ to change the tone of the impulse.



Character

Character changes the pitch and balance between 2 impulses.



Tone uses an EQ to change the tone of the impulse.



Type selects which impule texture will be used.

ELECTRIC
GLASS
HUMAN
METAL
PAPER
PLASTIC
WATER
WOOD

Type selects which impule texture will be used.



Gain controls the volume of the convolution.



Output gain Controls the final output volume of the plugin.

#### .00 dB **Delay** gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

Filth

Type Type selects the impulse used for the convolution.

Drink Can

Type selects the impulse used for the convolution.

Type



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.

#### SYNC Sync

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.

Length

Straight 1/8

Length controls the note value of the delay time, this is synced to the host tempo.

100 ms Delay

Delay controls the delay time.

#### -12.0 dB Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.

#### 0.00 dB

Gain Gain controls the output volume of the delay tap.

#### SYNC Sync

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.

# Length

Dotted 1/4

Length controls the note value of the delay time, this is synced to the host tempo.

#### 100 ms Delay

Delay controls the delay time.

### -12.0 dB

Feedback controls the amount of signal that gets fed back in to the delay's input.

#### 0.00 dB

Gain Gain controls the output volume of the delay tap.

Feedback



Mid/Side controls the balance of the delay's output being sent to convolution mid or side.
Off

HP controls the frequency of the high-pass filter.

HP

\_\_\_\_\_ LP

LP controls the frequency of the low-pass filter.

# Ducking

Ducking reduces the level of the delay when the dry signal is present. This is a great way to stop the delay from overwhelming the sound and lets it cut through a mix more clearly.



## Saturation

Saturation controls the amount of distortion added to the signal.



### Ducking

Ducking reduces the level of the delay when the dry signal is present. This is a great way to stop the delay from overwhelming the sound and lets it cut through a mix more clearly.



#### Saturation

Saturation controls the amount of distortion added to the signal.



HP controls the frequency of the high-pass filter.

HP



LP controls the frequency of the low-pass filter.



## Convolve

Convolve controls the mix of the convoluted signal and the dry signal.



## 🛛 Convolve

Convolve controls the mix of the convoluted signal and the dry signal.





# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

Delay gain Delay gain.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.



Feedback controls the amount of signal that gets fed back in to the delay's input.



Type controls the note type of the delay time, this is synced to the host tempo.

1	1/2	1/4	1/8	1/16	1/32	1/64	Length
---	-----	-----	-----	------	------	------	--------

Length controls the note value of the delay time, this is synced to the host tempo.



#### Spread

Spread generates stereo content for the processing to work correctly. If you already have a wide stereo signal you can set this to 0%. If you have a mono or very narrow signal, you can set this to 100%. For most signals it sounds good at 50%.



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



#### Offset

Offset controls the balance of the delay offset in the mid and side channels. Turning the knob to the left will offset the delay times in the mid channel and to the right in the side channel.



#### Formant

Formant controls the balance of formant offset in the mid and side channels. Turning the knob to the left will offset the formants in the mid channel and to the right in the side channel.



#### 💽 Ping-pong

Ping-pong controls the balance of the ping-pong effect in the mid and side channels. Turning the knob to the left will increase the pingpong effect in the mid channel and to the right in the side channel.



#### Blur

Blur controls the balance of spectral smearing in the mid and side channels. Turning the knob to the left will increase the amount of bluring in the mid channel and to the right in the side channel.



#### Filter

Filter controls the balance of the filter in the mid and side channels. Turning the knob to the left will add high-pass and low-pass filters in the mid channel and to the right in the side channel.



#### Feedback

Feedback controls the balance of the delay feedback in the mid and side channels. Turning the knob to the left will increase the feedback in the mid channel and to the right in the side channel.



#### Level

Level controls the balance of the delay output in the mid and side channels. Turning the knob to the left will make the delay louder in the mid channel and to the right will be louder in the side channel.



**Delay gain** Delay gain controls the volume of the delay signal.

## 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

625 ms

Delay controls the delay time.

## Length

Dotted 1/4

Length controls the note value of the delay time, this is synced to the host tempo.

# PING PONG Ping Pong

Ping Pong is a classic delay effect that alternates each delay from channel to channel.

#### SYNC

## Sync

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.



Pan controls the stereo position of the delay.



## Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



Delay controls the delay time.

## Length

Straight 1/16

Length controls the note value of the delay time, this is synced to the host tempo.



Ping Pong

Ping Pong is a classic delay effect that alternates each delay from channel to channel.



Sync

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.



Pan controls the stereo position of the delay.



## Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



Dry/Wet controls the mix of the delayed signal with the dry signal.

Solo B



Solo B mutes delay A. This is useful, as it allows to more clearly hear how the crossover is splitting the sound.



Solo A

Solo A mutes delay B. This is useful, as it allows to more clearly hear how the crossover is splitting the sound.



#### Separation

Separation is the crossover that splits the signal into A and B. It works differently depending on which mode is used.

FREQUENCY	LEVEL	PANORAMA	SPECTRUM	Mode
				MODE

Mode selects how the signal will be split.

**Frequency** splits the signal by frequency. Frequencies below the crossover will be sent to delay A and above to delay B. **Level** splits the signal by volume. The separation parameter acts as a threshold. Above the threshold is sent to delay B and below to delay A.

**Panorama** splits the signal by stereo position. Signal below the crossover will be considered left and sent to delay A and above will be right and sent to delay B.

Spectrum splits the signal bassed on how loud each frequency is. Louder frequencies are considered to be tonal and sent to delay B

and quiter are noise sent to delay A.



Speed Speed on trols the rate of modulation, this is measured in bars.



Random controls the amount of randomness in the LFO shape.



Amount Amount controls the depth of modulation.



Shape selects the shape of the LFO.





# 0.00 dB

Delay gain Delay gain controls the volume of the delay signal.



#### **Output gain**

Output gain controls the final output volume of the plugin.



Delay gain Delay gain controls the volume of the delay signal.



Dry/Wet Dry/Wet controls the mix of the delayed signal with the dry signal.



## Saturation

Saturation controls the amount of distortion.



Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



X controls the early/late balance of the reverb.



X controls the ping-pong for the delays.



X controls the frequency of a high-pass and low-pass filter.



X selects a sequence that modulates time.



X selects a sequence that modulates volume.



Delay gain Delay gain controls the volume of the delay signal.



Output gain Output gain controls the final output volume of the plugin.



Delay gain Delay gain controls the volume of the delay signal.

# Super pong



# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

0.00 dB Delay gain Delay gain controls the volume of the delay signal.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.



#### Ducking

Ducking reduces the level of the delay when the dry signal is present. This is a great way to stop the delay from overwhelming the sound and lets it cut through a mix more clearly.



#### **Exciter**

Exciter is an expander and saturator for the lower and upper frequencies.



Tape controls the amount of the tape effect. It emulates delay drift, saturation and tone.



## Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



LP controls the frequency of the low-pass filter.



HP controls the frequency of the high-pass filter.



Straight 1/8

Length controls the note value of the delay time, this is synced to the host tempo.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.

NORMAL HALF

Speed

Mode

Speed selects how fast the ping pong effect will be. Normal, will be the same speed as the delay sync value. Half, will be double the delay value.



Mode selects the type of ping pong.

**Standard** is a classic ping pong effect that alternates from left to right with each delay. **Paradiddle** is a special ping pong that uses a paradiddle pattern to alternate between left and right. The pattern is L R L L R L R R. This creates a more even stereo image, as classic ping pong can often sound louder on one side.



Offset creates an offset in one of the channels to make the sound wider. This uses the haas effect.



Ping/Pong controls the amount of the ping pong effect and decides if it will start on the right or left.



Delay gain controls the volume of the delay signal.

#### 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

## 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.



## Repeats

Repeats controls how long the tail of delays last. It is very similar to feedback, however it also changes some other processors such as filter and saturation.



Shuffle simulates shuffling by offseting every other delay.



## Ducking release

Ducking release controls how fast the ducked signal can return to normal volume.



#### Ducking

Ducking reduces the level of the delay when the dry signal is present. This is a great way to stop the delay from overwhelming the sound and lets it cut through a mix more clearly.

## Length

Straight 1/8

Length controls the note value of the delay time, this is synced to the host tempo.



## Delay

Delay controls the delay time.



#### Width

Width creates an offset in one of the channels to make the sound wider. This uses the haas effect.



#### Panorama

Panorama controls the stereo position of the delay.

## PING PONG

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.



#### Sync

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.







# Mid Mid controls the gain of a mid peak EQ.



Low controls the gain of a low shelf EQ.



Color selects the sound character of the tape.



Age controls the quality of the tape.



Wow & Flutter Wow & Flutter Speed.



Drive controls the amount of tape saturation.

## Thrower



0.00 dB Delay gain Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.



Dry/Wet Dry/Wet controls the mix of the delayed signal with the dry signal.



Length Length controls the note value of the delay time, this is synced to the host tempo.



Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



<sup>4</sup> Length

Length controls the note value of the delay time, this is synced to the host tempo.

## Straight 1/16

Length controls the note value of the delay time, this is synced to the host tempo.



Length Length the note value of the delay time, this is synced to the host tempo.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



Phaser Phaser controls the amont of the phaser effect.



### 

Width creates an offset in one of the channels to make the sound wider. This uses the haas effect.



LP controls the frequency of the low-pass filter.



HP controls the frequency of the high-pass filter.



Time manipulation selects a special time modification.

OFF	SLOW	MEDIUM	FAST	Auto-pan
-----	------	--------	------	----------

Auto-pan selects the rate of stereo modulation.



Type selects if high-pass or low-pass filter will be used.

## PRE POST

Position selects it the filter will be placed before or after the delay.



Speed selects how fast the filter frequency will be modulated. **Fast** = 1 bar, **Slow** = 2 bars.

-6.00 dB

Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.

## Hold

Hold controls how long the on/off will stay on each time it is triggered.





Delay gain Delay gain.

Delay gain Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.



Dry/Wet controls the mix of the delayed signal with the dry signal.



Tape = Tape delay emulation. Modulation of the delay parameter creates pitch shifts as whith slowing down or speeding up tape playback speed. Tape saturatin, Wow & Flutter and vintage shelf EQ. **Modern** = High quality transparant dealy. Has ping/pong and shuffle/swing, minimum phase peak EQ and wave shaping.

Spectral = Advanced spectral delay. Change pitch delay time and feedback individually for each frequency, has a new sound!



Character

#### Character

**Tape** = Wow and Flutter, creates a warm chorus trype sound. Helps to soften/defuse the delays when using higher feedback values. X = Modulation speed. Y = Modulation amount.

**Modern** = Introduces swing and ping pong to create variations in the delays. **X** = Ping/Pong left or right. **Y** = Shuffle/Swing.

**Spectral** = Spectral morphing of pitch and delay time.

X = Offsets delay time for low or high frequencies. Y = Increaces or decreases pitch with each delay.



High EQ

High EQ

**Tape** = Warm analog shelf EQ inside the feedback loop, simulates tape and increases in brilliance as the feedback increases. **X** = Frequency, **Y** = Gain

**Modern** = Transparant minimum phase EQ, post feedback allows feedback to be changed without changing the EQ. X = Frequency, Y = Gain

**Spectral** = Spectral feedback, that has inividual feedback values for each frequency. **X** = Central Frequency, **Y** = Feedback Level



Low EQ

**Tape** = Warm analog shelf EQ inside the feedback loop, simulates tape and increases in brilliance as the feedback increases. **X** = Frequency, **Y** = Gain **Modern** = Transparant minimum phase EQ, post feedback allows feedback to be changed without changing the EQ. **X** = Frequency, **Y** = Gain

**Spectral** = Spectral feedback, that has inividual feedback values for each frequency. **X** = Central Frequency, **Y** = Feedback Level



Count selects a value that the delay value wil be multiplied by.



Type selects the note type of the delay time, this is synced to the host tempo.

## Length

Count



Length controls the note value of the delay time, this is synced to the host tempo.



Delay controls the delay time.



Saturation

Saturation **Tape** = Emulates tape saturation, **Modern** = Gain compensadted wave shaping, for smooth saturation. **Spectral** = Polyphonic saturation, gives musical results by only saturating the harmonics in your audio.



Width

Width

**Tape** = Creates pitch variation between channels, making a double tracked type effect. **Modern** = Offsets the delay in one channel to create a Haas effect. **Spectral** = Multiband spectral stereo widening.



Feedback Feedback controls the amount of signal that gets fed back in to the delay's input.

## **Top & bottom**



#### 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

**Delay gain** Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.



Dry/Wet controls the mix of the delayed signal with the dry signal.



Intesity controls how quickly each band fades into the next one. It's similar to the Slope parameter used with analog crossovers.



Speed controls the speed of the level follower. This can be used to control how quickly levels will rise/fall above/bellow the threshold.



Crossover controls the threshold for the dynamic split. Levels above the threshold will be sent to the top delay nad bellow the threshold to the bottom delay.

#### SOLO BOTTOM **Solo Bottom**

Solo Bottom allows you to hear only the bottom delay. This is useful for setting the crossover settings.

#### SOLO TOP

#### Solo Top

Solo Top allows you to hear only the top delay. This is useful for setting the crossover settings.



Reverb controls the amount of reverb.

#### 0.00%

Chorus Chorus controls the amount of chorus.

#### 0.00%

Saturation Saturation controls the amount of distortion.

0

Formant Formant controls the formant of the delay signal.

#### 0 Hz Frequency

Frequency controls the frequency shift of the delay signal.

#### +0.00

Pitch controls the pitch of the delay signal, this is measured in semitones.

## Reverb

Reverb controls the amount of reverb.

Pitch

#### Chorus

Chorus controls the amount of chorus.



Saturation controls the amount of distortion.



#### Formant

Formant controls the formant of the delay signal.



#### Frequency

Frequency controls the frequency shift of the delay signal.

## Pitch

Sync

Pitch controls the pitch of the delay signal, this is measured in semitones.

SYNC

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.

## Length

Dotted 1/4

Length controls the note value of the delay time, this is synced to the host tempo.

#### 250 ms

Delay Delay controls the delay time.



#### Frequency

Frequency controls the central frequency at which the feedback will be at its highest.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



Gain controls the volume of the delay.

#### 0.00%

Reverb Reverb controls the amount of reverb.



Chorus Chorus controls the amount of chorus.

### 0.00%

0

Saturation Saturation controls the amount of distortion.

## Formant

Formant controls the formant of the delay signal.

#### 0 Hz Frequency

Frequency controls the frequency shift of the delay signal.

#### +0.00

Pitch controls the pitch of the delay signal, this is measured in semitones.



Reverb controls the amount of reverb.

Pitch

## Chorus

Chorus controls the amount of chorus.

## Saturation

Saturation controls the amount of distortion.

Sync



## Formant

Formant controls the formant of the delay signal.

## Frequency

Frequency controls the frequency shift of the delay signal.



Pitch controls the pitch of the delay signal, this is measured in semitones.



Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.

# Length

Straight 1/8

Length controls the note value of the delay time, this is synced to the host tempo.



Delay controls the delay time.



#### Frequency

Frequency controls the central frequency at which the feedback will be at its highest.



E Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



Gain controls the volume of the delay.

## Unison



Delay gain Delay gain controls the volume of the delay signal.

Delay gain Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.

Straight Triplets Dotted Tuplets
----------------------------------

Type controls the note type of the delay time, this is synced to the host tempo.

1/2	1/4	1/8	1/16	Length
-----	-----	-----	------	--------

Length controls the note value of the delay time, this is synced to the host tempo.



Voices selects how many delay taps and unison voices there will be. 8X8 means there will be 8 delay voices multiplied by 8 unison voices making a total of 64 voices. This is displayed in the panels.



#### Wash

Wash is a multi effect that is great for risers and transitions.



Duck/Match Duck/Match Duck/Match is a very special control. Negative values duck the delay signal when the dry signal is present. Positive values match the amplitude of the unison signal to the dry delay signal.



#### Modulation

Modulation controls the amount of modulation in the unison voices. There is visual representation of the modulation displayed in the panels.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



X controls the range of the filter values for the delay voices. Y controls the range of the formant values for the unison voices.



X controls the range of the pitch values for the delay voices. Y controls the range of the pitch values for the unison voices.



X controls the range of the panorama values for the delay voices. Y controls the range of the panorama values for the unison voices.



X controls the range of the delay values for the delay voices. Y controls the range of the delay values for the unison voices.

## **Alien voices**



#### 0.00 dB

Delay gain Delay gain controls the volume of the delay signal.

#### 0.00 dB

Delay gain Delay gain controls the volume of the delay signal.

#### 0.00 dB

Output gain Output gain controls the final output volume of the plugin.



Dry/Wet controls the mix of the delayed signal with the dry signal.



Feedback controls the amount of signal that gets fed back in to the delay's input.





Length controls the note value of the delay time, this is synced to the host tempo.



Multiplier Takes the delay time and multiplies it by the selected value.



Shift controls the frequency for the frequency shifter.





Length controls the note value of the delay time, this is synced to the host tempo.



Multiplier Takes the delay time and multiplies it by the selected value.



Shift controls the frequency for the frequency shifter.

Chimes



0.00 dB

#### Delay gain

Delay gain controls the volume of the delay signal.

#### 0.00 dB

Delay gain Delay gain controls the volume of the delay signal.

#### 0.00 dB

Output gain Output gain controls the final output volume of the plugin.

## Shape

Shape selects the LFO shape for the ring modulator.

#### 10000 Hz

LP controls the frequency of the low-pass filter.

LP

HP

#### 100.00 Hz

HP controls the frequency of the high-pass filter.

## 75.0% Stepped

Stepped controls the smoothness of the transition from left to right. Higher values will make the effect suddenly jump from side to side.

# 1.000 Hz Speed

Speed controls the LFO rate for the autopan.

Feedback

Feedback

### 50.0%

Feedback controls the feedback level of the comb filter.

## <sup>400.0 Hz</sup> Frequency

Frequency controls the frequency of the comb filter.

#### 50.0%

Feedback controls the feedback level of the comb filter.

#### 800.0 Hz

Frequency controls the frequency of the comb filter.



Gain controls the level of the comb filter.



Gain controls the level of the comb filter.



Depth controls the amount of autopan.



Dry/Wet Dry/Wet controls the mix of the delayed signal with the dry signal.



Drive controls the amount of distortion.



#### Regeneration

Regeneration controls the number of additional delay taps that will be generated.



Shape selects the LFO shape for the ring modulator.

## Shape

Shape selects the LFO shape for the ring modulator.

# 20.0% Ring - Depth

Ring - Depth controls the amount of the ring modulation.

5000 Hz

Ring - Freq controls the frequency of the ring modulator.

## Ring - Depth

Ring - Depth controls the amount of the ring modulation.

### 3000 Hz

Ring - Freq controls the frequency of the ring modulator.

# 20.0% Ring - Depth

Ring - Depth controls the amount of the ring modulation.

# 1000.0 Hz Ring - Freq

Ring - Freq controls the frequency of the ring modulator.



Length controls the note value of the delay time, this is synced to the host tempo.



Length

Level controls the volume of the delay signal.





Length controls the note value of the delay time, this is synced to the host tempo.



Level controls the volume of the delay signal.

## Length



Length controls the note value of the delay time, this is synced to the host tempo.



Level controls the volume of the delay signal.

# **Digital chant**



## 0.00 dB

**Delay gain** Delay gain controls the volume of the delay signal.

## 0.00 dB

**Delay gain** Delay gain controls the volume of the delay signal.

#### 0.00 dB

**Output gain** Output gain controls the final output volume of the plugin.

Length

Straight 1/8

Length controls the note value of the delay time, this is synced to the host tempo.



Dry/Wet controls the mix of the delayed signal with the dry signal.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.

#### Octave

Octave selects which octave the harmonized signal will be.

#### f12 Transpose

Transpose controls the pitch of the harmonized signal, measured in semitones.

#### 75.0%

Strumming Strumming controls the delay offset of the harmonizer signal.



#### Dry/Wet

Dry/Wet controls the balance of the harmonizer signal and the dry signal.

# 2000 ms Decay

Decay controls the amount of time it takes for the reverb to decay.

#### 25 m Size

Size controls the room size for the reveb.

Predelay

#### 20 ms

Predelay controls the amount of preday for the reverb.

#### 50.<mark>0%</mark> Early/Late

Early/Late controls the balance of the early and late reflections.



#### Dry/Wet Dry/Wet controls the balance of the reverb signal with the dry signal.

#### 5.0 ms Delay

Delay controls the amount of predelay used for the chorus voices.

#### 75.0% Spread

Spread controls how the chorus voices will be distributed over the stereo feild.



Voices selects how many aditional voices will be used for the chorus.

# 0.2000 Hz Rate

Rate controls the speed of the chorus modulation.



### Dry/Wet

Dry/Wet controls the balance of the chorus signal with the dry signal.



Dry/Wet controls the balance of the distorted signal with the dry signal.

Dry/Wet



Alpha, Beta, Delta, Gamma, Theta Alpha, Beta, Delta, Gamma, Theta control the levels for different types of distortion.

## **Dirt texture**



#### 0.00 dB

**Delay gain** Delay gain controls the volume of the delay signal.

#### 0.00 dB **Delay gain**

Delay gain controls the volume of the delay signal.


#### Straight 1/16 ▶ •

Length controls the note value of the delay time, this is synced to the host tempo.



Delay/Reverb Delay/Reverb controls the balance of the delay and reverb signals.



# Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



Decay

Decay controls the amount of time for the reverb signal to decay.



Width controls the delay offset for the left and right channels.

# Dystopia

DYS	TOP I/	DRY/WE	DELAY INPUT DEL	JTPUT 00 dB AY GAIN 00 dB
			HIGH COMB	GAIN
FEEDBA	CK LENG ( STRAIGH			=
PING/PONG	Ô.	O.	MID COMB	GAIN
REVERB	GRANULAR	DRIFT		Ē
DRY/WET	DRY/WET	SPEED		
$\mathbf{O}$	Ó	Ó	LOW COMB	GAIN
TIME	TRANSPOSE	PITCH		
2000 ms	0	50.0%		
SIZE	GRAIN SIZE	PAN	×	
25 m	50 ms	50.0%		

0.00 dB **Delay gain** Delay gain controls the volume of the delay signal.

0.00 dB **Delay gain** Delay gain controls the volume of the delay signal.

0.00 dB Output gain Output gain controls the final output volume of the plugin.

# Length

Length controls the note value of the delay time, this is synced to the host tempo.



Feedback controls the amount of signal that gets fed back in to the delay's input.



# Ping/Pong

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.



HP controls the frequency of the high-pass filter.



LP controls the frequency of the low-pass filter.



# 💹 Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.

### 50.<mark>0%</mark>

Pan Pan controls the amount of panorama modulation.

### 50 ms

Grain size Grain size controls the length of each individual grain.

# 25 m

Size controls the room size of the reverb.

# 50.0%

Pitch Pitch range, therefore the depth of modulation.

## Ó

**Transpose** 

Transpose controls the pitch of the granular, measured in semitones.

# 2000 ms

Timecontrols the length of the reverb.



Speed Controls the rate of modulation.



Dry/Wet

Dry/Wet controls the mix of the granular signal with the dry signal.



#### 🜌 Dry/Wet

Dry/Wet controls the balance of the reverb signal with the dry signal.



# Gain Controls the level of the comb filter.



# Gain Gain Controls the level of the comb filter.



#### Gain

Gain controls the level of the comb filter.



X controls the frequency of the comb filter.



X controls the frequency of the comb filter.



#### X controls the frequency of the comb filter.

# **Early reflections**



#### 0.00 dB

Delay gain Delay gain Delay gain controls the volume of the delay signal.

#### 0.00 dB

Delay gain Delay gain controls the volume of the delay signal.

#### 0.00 dB

Output gain Output gain controls the final output volume of the plugin.



# Dry/Wet Controls the mix of the delayed signal with the dry signal.



Low controls the gain of a low shelf EQ.



HP controls the frequency of the high-pass filter.



LP controls the frequency of the low-pass filter.



High controls the gain of a high shelf EQ.



Mid controls the gain of a mid peak EQ.

# MONO Mono

Mono switches the delay signal into mono.





Left/Right

Left/Right controls the panorama of the delay.



Length controls the timings for the delay and resonator.

# **Glitch buffer**



#### 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

**Delay gain** Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.



#### **Dry/Wet**

Dry/Wet controls the mix of the delayed signal with the dry signal.

#### 0.00%

**Smoothness** 

Smoothness controls the smoothness between min and max values. If this parameter is set to 0% the the modulation will suddenly jump between min and max.

# Speed

Normal

Speed controls the rate of modulation.



A/B is a visual representation of the modulation from the A/B Switcher. If the A/B Switcher is disabled, then this parameter can control the mix of buffer A and B.

# 🖲 A/B Switcher

A/B Switcher uses a step sequencer to modulate between delay buffer A and B.

Empty buffer



Empty buffer clears the recorded audio, so you can capture a new take.

#### FILL BUFFER

#### Fill buffer

Fill buffer switches on recording of the dry signal, it automatically switches off. This recorded audio is then repeated and becomes the delay.

# **Hippie**



### 0.00 dB

Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

#### 0.00 dB

Output gain Controls the final output volume of the plugin.





Multiplier takes the delay value and multiplies it by the paramiter value.

# Length



Length controls the note value of the delay time, this is synced to the host tempo.



Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



Pitch controls the pitch of the granular, it is measured in semitones.



Dry/Wet controls the mix of the granular signal with the dry signal.



Time controls the length of the reverb.



Dry/Wet Dry/Wet controls the mix of the reverb signal with the dry signal.

2.000 Hz

Speed controls the rate of the phaser.



Depth controls the mix of the phaser signal with the dry signal.



Speed controls the rate of the vibrato.



Depth Depth controls the amount of vibrato.



Speed selects the sync rate of the flanger.

Speed



Depth controls the mix of the flanger signal with the dry signal.

# Mega mod



# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



Pitch controls the pitch of the delays, measured in semitones.



# 🔜 Delay freq

Delay freq controls how the delay times are distibuted accross the frequency spectrum.



# Pan freq

Pan freq controls how the panorama positions are distributed accross the frequency spectrum.



Feedback Feedback controls the amount of signal that gets fed back in to the delay's input.



FB freq controls how the feedback values are distibuted accross the frequency spectrum.



Gain controls the level of the delay.



Drive controls the amount of tape saturation.



Delay mod

Delay mod modifies the delay length value.



Pan controls the stereo position of the delay.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



Filter controls the frequency of the high and low pass filters. Negative values are low-pass and posotive values are high-pass.



Gain controls the level of the delay.



#### Tape/Spectral

Tape/Spectral controls the mix of the 2 delay types.

#### RANDOMIZE MODULATION

Modulation randomizes the values of all parameters in the Mod depth, Mod speed and Mod shape

Modulation

#### RANDOMIZE DELAYS

### Values

Values randomizes the values of all parameters in the Tape delay and Spectral delay

# Length

### Straight 1/2

Length controls the note value of the delay time, this is synced to the host tempo.

# Length

Straight 1/8

Length controls the note value of the delay time, this is synced to the host tempo.

#### Triangle + Mod shape

Mod shape controls the modulation shape for each of the controls in the Spectral delay

# Mod speed

Mod speed controls the modulation speed for each of the controls in the Spectral delay

50.0%

Mod depth Mod depth controls the modulation depth for each of the controls in the Spectral delay

# Random Smooth Mod shape

Mod shape controls the modulation shape for each of the controls in the Tape delay

#### 2 Mod speed

Mod speed controls the modulation speed for each of the controls in the Tape delay

#### 10.0% Mod depth

Mod depth controls the modulation depth for each of the controls in the Tape delay

# Nebula



**Delay gain** Delay gain Delay signal.

**Delay gain** Delay gain controls the volume of the delay signal.

Output gain Output gain controls the final output volume of the plugin.



Mod rate Mod rate controls the speed of the vibrato.



Mod depth Mod depth controls the amount of vibrato.



Dry/Wet Dry/Wet controls the mix of the delayed signal with the dry signal.



Density Controls the number of generated grains.



**Freeze** 

Freeze stops receiving input grains and only uses the current ones.



Mid controls the gain of a mid peak EQ.



High Controls the gain of a high shelf EQ.



Low controls the gain of a low shelf EQ.



Echo time controls the time of the delay.



Width randomizes the panorama position of the grains.



Length Length between grains.



Size controls the length of each grain.



Pitch controls the pitch of the grains, measured in semitones.

Pitch

**Particle physics** 



# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

Delay gain Delay gain.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.



Deform skews the timing of the diffusion taps.



Color Color controls the frequency distibution of the diffusion taps.



Scatter Scatter controls the arrangement of the diffusion taps.



Density controls the number of diffusion taps for the particles.



Amount controls the mix between the diffused particles and non diffused particles.



Tone Controls the formant of the particles.



Mutate Mutate controls the amount of spectral feedback.



Chaos conrols the amount of randomization of each individual frequency.



#### Smear

Smear controls how much the input time is slowed. With 100% the input spectrum gets completely frozen.



Amount controls the mix of the transformed particles with the non transformed particles.



Width controls the amount widening for the particles.



🖾 Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



Glitch Glitch randomizes the size of the particles.



Disorder controls the delay randomness for the particles.



Multiply Multiply controls the amount of additional particles that are generated.



Amount controls the mix of generated particles with the dry signal.

# Resonator



# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain is the last thing in the signal chain and controld final output volume of the plugin.

# 98.00 Hz

Frequency controls the frequency of the resonator.



Gain controls the volume of the resonator.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the resonator input.



#### Frequency

Frequency controls the frequency of the resonator.



Gain controls the volume of the resonator.



Feedback Feedback controls the amount of signal that gets fed back in to the resonator input.

#### 49.00 Hz

Frequency controls the frequency of the resonator.



Gain controls the volume of the resonator.



Feedback Feedback controls the amount of signal that gets fed back in to the resonator input.

32.70 Hz

Frequency

Frequency controls the frequency of the resonator.



Gain controls the volume of the resonator.



Feedback Feedback controls the amount of signal that gets fed back in to the resonator input.



Shuffle simulates shuffling by offseting every other delay.



Dry controls the level of the non delayed signal, this is still processed by the resonator.

#### center

#### Panorama

Panorama controls the stereo position of the delay.

Width

### 0.00%

Width creates an offset in one of the channels to make the sound wider. This uses the haas effect.

# Length



Length controls the note value of the delay time, this is synced to the host tempo.



Delay controls the delay time.

# PING PONG

Ping pong is a classic delay effect that alternates each delay from channel to channel.

\_\_\_\_\_



Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.



LP controls the frequency of the low-pass filter.

Sync



HP controls the frequency of the high-pass filter.



Low controls the gain of a low shelf EQ.



High controls the gain of a high shelf EQ.



Mid controls the gain of a mid peak EQ.



Market Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.





0.00 dB

Delay gain Delay gain controls the volume of the delay signal.

#### 0.00 dB

Delay gain Delay gain controls the volume of the delay signal.

#### 0.00 dB

Output gain Output gain controls the final output volume of the plugin.



### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.



# Length



Length controls the note value of the delay time, this is synced to the host tempo.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



#### Distortion delay

Distortion delay is a delay with a distortion inside the feedback loop. Dry/Wet controls the mix of the distortion signal with the delay signal. X/Y Pad bellow, controls the character of the distortion.



# Sync

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.

250 ms Delay

Delay controls the delay time.

# Length

Straight 1/16 ▶

Length controls the note value of the delay time, this is synced to the host tempo.



### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



#### Filter delay

Filter delay is a delay with a filter inside the feedback loop. Dry/Wet controls the mix of the filtered signal with the delay signal. X/Y Pad bellow, controls the character of the filter.



Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.



Delay controls the delay time.

Delay



Length controls the note value of the delay time, this is synced to the host tempo.



Feedback controls the amount of signal that gets fed back in to the delay's input.



# Reverb delay

Reverb delay is a delay with a reverb inside the feedback loop. Dry/Wet controls the mix of the reverb signal with the delay signal. X/Y Pad above, controls the character of the reverb.



Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.



Delay controls the delay time.

# Length

Straight 1/16

Length controls the note value of the delay time, this is synced to the host tempo.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



#### 🔜 Stereo delay

Stereo delay is a delay with a stereo widener and autopan inside the feedback loop. Dry/Wet controls the mix of the stereo signal with the delay signal. X/Y Pad above, controls the character of the stereo effects..

# **Stretch & shrink**



## 0.00 dB

Delay gain controls the volume of the delay signal.

# 0.00 dB

Delay gain Controls the volume of the delay signal.

#### 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

Gain

# Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.

# 0.00 dB

75.0%

Gain controls the volume of the delay.



Dry/Wet controls the mix of the delayed signal with the dry signal.

#### SHRINK STRETCH

Shrink Stetch selects if the delay time will speed up or slow down. Stretch modulates from min to max, Shrink modulates from max to

**Shrink Stetch** 



LP controls the frequency of the low-pass filter.



Saturation Saturation on the delay signal.



Width pans Tap 1 left and Tap 2 right. Both taps are in ping pong mode.

# Twisted



## 0.00 dB

Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB

Delay gain

Delay gain controls the volume of the delay signal.

## 0.00 dB

#### Output gain

Output gain is the last thing in the signal chain and controld final output volume of the plugin.



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



Feedback controls the amount of signal that gets fed back in to the delay's input.



Attack controls the attack level of the transient shaper.



Decay controls the number of taps.



Color

Color controls the filter frequencies of the taps.



Rate controls the delay tap times.



Width controls the stereo position of the taps.

Rate

Width

# Upsurge



# 0.00 dB

Delay gain controls the volume of the delay signal.

# 0.00 dB

Delay gain controls the volume of the delay signal.

# 0.00 dB

### **Output gain**

Output gain is the last thing in the signal chain and controld final output volume of the plugin.



**Dry signal** 

Dry signal controls the level of the non delay signal, this is still processed by the upsurge effect.



Shuffle simulates shuffling by offseting every other delay.



# Panorama

Panorama controls the stereo position of the delay.

0.00%

#### Width

Width creates an offset in one of the channels to make the sound wider. This uses the haas effect.



Dry/Wet controls the mix of the delayed signal with the dry signal.



Length Length of the reverse reverb.



Density controls the density of the reverse reverb.



Size controls the room size of the reverse reverb.



Decay controls the speed of the decay of the reverse reverb.



Dry delay

Dry delay controls the delay time of the delay signal that is not effected by the reverse reverb.



Dry activates a deley that is not effected by the reverse reverb.



Repeats controls how long the tail of delays last. It is very similar to feedback, however it also changes some other processors such as filter and saturation.

## Length

# Straight 1/16

Length controls the note value of the delay time, this is synced to the host tempo.



Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.

350 ms Delay

Sync

Delay controls the delay time.



# Ping/Pong

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.

# Loaded



Delay gain Controls the volume of the delay signal.

#### 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

#### 📓 Reverb

Reverb controls the amount of reverb for each tap.

Randomize will create random values for all the taps.

#### Double

Double controls the double speed of each tap.

Randomize will create random values for all the taps.

#### **Distortion**

Distortion controls the amount of distortion for each tap.

Randomize will create random values for all the taps.

#### 🔤 Reso

Reso controls the filter resonance of each tap.

Randomize will create random values for all the taps.

Level controls the volume of each tap.

50.0%

Randomize will create random values for all the taps.

## Color

Color controls the sound character of the reveb.





Feedback controls the amount of signal that gets fed back in to the delay's input.



#### Repeats

Repeats selects the number of taps.



#### Length

Length controls the note value of the delay time, this is synced to the host tempo.





HP controls the frequency of the high-pass filter.



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.

#### Frequency

Frequency controls the filter frequency of each tap.

Randomize will create random values for all the taps.

#### **Stepped / Continuous**

Stepped / Continuous button lets you switch between 2 editor modes - stepped, which resembles the vintage analog gear by providing only a limit set of values, and continuous, which is traditional for digital user interfaces. There is absolutely no difference in sound, however for some people it is easier to have limited set of options to choose from, hence they prefer stepped mode. Others enjoy the full capacity of the digital processing, hence they prefer continuous mode.

# Oh boy



# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

### 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

#### 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

# $\bigcirc$

#### High-shelf frequency

High-shelf frequency controls the frequency at which the higher frequencies will be reduced.

#### High-shelf cut

High-shelf cut controls the amount that the higher frequencies will be reduced to lessen the harshness of the distortion.



Color controls the sound character of the distortion.



Gain controls the central gain of the filter.



Q controls the filter resonance.



Type selects the type of filter to be used.



Drive controls the amount of distortion.



Frequency

Frequency controls the frequency of the filter.



Pan controls the stereo position of the delay.



Level controls the volume of the delay.



**Feedback** Feedback controls the amount of signal that gets fed back in to the delay's input.



Delay Delay time.



High-shelf frequency High-shelf frequency controls the frequency at which the higher frequencies will be reduced.



High-shelf cut High-shelf cut controls the amount that the higher frequencies will be reduced to lessen the harshness of the distortion.



Color controls the sound character of the distortion.



Gain Controls the central gain of the filter.



Q controls the filter resonance.



Type selects the type of filter to be used.



Drive controls the amount of distortion.


#### Frequency

Frequency controls the frequency of the filter.



Pan controls the stereo position of the delay.



Level controls the volume of the delay.



Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



Delay Controls the delay time.



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.

<sup>0 ms</sup> Delay

Delay controls the delay time of the tap.

silence Level

Level controls the volume of the tap.

#### 0 ms Delay

Delay controls the delay time of the tap.

#### silence Level

Level controls the volume of the tap.

#### 0 ms Delay

Delay controls the delay time of the tap.

#### 0.00 dB Level

Level controls the volume of the tap.

#### Balance

Balance controls the output of the tap. -100% sends the signal to delay 1, 100% sends the signal to delay 2 and 0% sends an equal amount to both delays.

#### BALANCE

#### Balance

Balance controls the output of the tap. -100% sends the signal to delay 1, 100% sends the signal to delay 2 and 0% sends an equal amount to both delays.

Balance

Balance controls the output of the tap. -100% sends the signal to delay 1, 100% sends the signal to delay 2 and 0% sends an equal amount to both delays.



📕 Depth

Depth controls the modulation amount for the modulatable parameters.

Speed

Speed controls the rate for the modulatable parameters.

#### Sine Shape

Shape controls the LFO shape for the modulatable parameters.

# **Order & chaos**





HP controls the frequency of the high-pass filter.



#### Ducking

Ducking reduces the level of the delay when the dry signal is present. This is a great way to stop the delay from overwhelming the sound and lets it cut through a mix more clearly.



#### 🌌 Reverb

Reverb controls the mix between the reverb signal and the dry signal.



## Saturation

Saturation controls the amount of distortion.



Type controls the note type of the delay time, this is synced to the host tempo.



Length controls the note value of the delay time, this is synced to the host tempo.

## RANDOM Random

Random sets random level values for all the taps.

# RANDOM Pan

Pan controls the stereo position for each tap.

Random creates random values for all taps.

## RANDOM Filter

Filter controls the filter frequency for each tap. Positive values are high-pass and negative values are low-pass.

Random creates random values for all taps.

## VARIATE Time

Time modifies the delay times for each tap.

Variate creates a small random change for all taps. This is good for adding some subtle movement to the sound.

Random creates random values for all taps.

# RANDOM Feedback

Feedback controls the amount of feedback for each tap.

Random creates random values for all taps.

# Tabbed



**0.00 dB Delay gain** Delay gain controls the volume of the delay signal.

**Delay gain** Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.

#### 200 ms Auto-swell

Auto-swell controls the time it takes for the delay signal to fade in.



#### **Auto-swell**

Auto-swell controls the time it takes for the delay signal to fade in.



Mod rate Mod rate controls the speed of vibrato.



Mod depth Mod depth controls the amount of vibrato.



High controls the gain of a high shelf EQ.



Mid controls the gain of a mid peak EQ.



Low controls the gain of a low shelf EQ.

Clean Digital Lo-Fi digital <mark>Broken digital</mark> Analog Hi-Fi analog Lo-Fi analog **Styl**e

Style selects the sound character of the delay.



Output Controls the volume of the delay tap.



Output Controls the volume of the delay tap.



Output Controls the volume of the delay tap.



Output Controls the volume of the delay tap.



Output controls the volume of the delay tap.



#### Output

Output controls the volume of the delay tap.



Output controls the volume of the delay tap.



Output Controls the volume of the delay tap.



Pan controls the stereo position of the delay.



Pan controls the stereo position of the delay.



Pan controls the stereo position of the delay.



Pan controls the stereo position of the delay.



Pan controls the stereo position of the delay.



Pan controls the stereo position of the delay.



Pan controls the stereo position of the delay.



Pan controls the stereo position of the delay.



Feedback Feedback controls the amount of signal that gets fed back in to the delay's input.



Feedback controls the amount of signal that gets fed back in to the delay's input.



## Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



## Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



Delay controls the delay time.



Delay controls the delay time.

300 ms Delay Delay controls the delay time.

250 ms Delay

Delay controls the delay time.

**50 ms Delay** Delay controls the delay time.

Tap my pitch up



## 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

#### 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

## 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

#### 25 ms

#### Resolution

Resolution defines how accurately the processor can analyze the audio. The lower the resolution, the more CPU is needed, but also more of the time domain characteristics are preserved, hence potentially higher audio quality.

#### 2048

#### **Buffer size**

Buffer size controls the block size used for processing. This plugin performs processing 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, the plugin 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 (but this is not always the case!), at the expense of greater CPU cost and increased latency. Also note that with some settings having too high a buffer size will produce a sort of time-smearing, ambient-like sound quality. Also note that this value is assigned only for sampling rates around 44-48KHz, the engine may readjust it for higher sampling rates in order to get similar audio results.



Dry/Wet controls the mix of the delayed signal with the dry signal.





Length controls the note value of the delay time, this is synced to the host tempo.



LP controls the frequency of the low-pass filter.



HP controls the frequency of the high-pass filter.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



Taps selects the number of delay taps.

**Pitch** Pitch controls the pitch of each delay tap, this is measured in semitones.

Randomize creates random values for all taps.

**Formant** Formant controls the formant of each delay tap.

Randomize creates random values for all taps.

#### Level

Level controls the volume of each delay tap.

#### Stepped / Continuous

Stepped / Continuous button lets you switch between 2 editor modes - stepped, which resembles the vintage analog gear by providing only a limit set of values, and continuous, which is traditional for digital user interfaces. There is absolutely no difference in sound, however for some people it is easier to have limited set of options to choose from, hence they prefer stepped mode. Others enjoy the full capacity of the digital processing, hence they prefer continuous mode.

# **Liquid Time**



Delay gain Delay gain.

#### 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

### 0.00 dB Output gain

Max

Output gain controls the final output volume of the plugin.



Max controls the maximum value of the modulation range.



Min controls the minimum value of the modulation range.



Rate selects the speed of the LFO, measured in bars.



Shape selects the shape of the LFO.



Max controls the maximum value of the modulation range.

#### 0.00%

Min controls the minimum value of the modulation range.



Min

Rate selects the speed of the LFO, measured in bars.



Shape selects the shape of the LFO.

# Length



Length controls the note value of the delay time, this is synced to the host tempo.



LP controls the frequency of the low-pass filter.



HP controls the frequency of the high-pass filter.



#### Ping/Pong

Ping/Pong controls the amount of the ping pong effect and decides if it will start on the right or left.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.

Length

## Dotted 1/8

Length controls the note value of the delay time, this is synced to the host tempo.



LP controls the frequency of the low-pass filter.



HP controls the frequency of the high-pass filter.



Ping/Pong

Ping/Pong controls the amount of the ping pong effect and decides if it will start on the right or left.



Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.



Length controls the note value of the delay time, this is synced to the host tempo.



LP controls the frequency of the low-pass filter.



HP controls the frequency of the high-pass filter.



#### Ping/Pong

Ping/Pong controls the amount of the ping pong effect and decides if it will start on the right or left.



#### Feedback

Feedback controls the amount of signal that gets fed back in to the delay's input.

REVERSE	FREEZE	SLOW DOWN	SPEED UP	NORMAL	Mode
					MOUE

Mode selects which time bassed effect will be used. Please note that there must be audio playing before selecting freeze mode, or it will feeze silence. If you wish to re freeze, you must select a different mode and the select freeze again.



#### 🖉 Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.



**Buffer feedback** 

Buffer feedback controls the amount of output from the buffer that will be fed back into the buffer input. This is a synced feedback and





Buffer length selects the length of time the buffer will fill until it starts playback.

# Oktafon



#### 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Delay gain

Delay gain controls the volume of the delay signal.

# 0.00 dB Output gain

Output gain controls the final output volume of the plugin.

## -6.00 dB Feedback

Feedback controls the level of signal fed back into the delay.

## Length

#### Straight 1/8

Length controls the note value of the delay time, this is synced to the host tempo.

## 🚽 Loop

Loop places all the pitch voices inside the feedback loop. This means that the pich values progressivly increace with each delay. It can be used to make rising or falling pitch and reverb type effects.

#### Length

Length controls the note value of the delay time, this is synced to the host tempo.

#### Ping/Pong

Ping/Pong is a classic delay effect that alternates each delay from channel to channel.

# **Sync**

Sync activates sync mode where the delay time will be in musical values and synced to the host tempo.

Length

Straight 1/8

Length controls the note value of the delay time, this is synced to the host tempo.

# **Multiply**



Multiply selects multiples of the delay length.

## 80.00 Hz HPF

HPF controls the frequency of the high-pass filter. It is inside the feedback chain, therefore the effect of the filter becomes more prominent with each delay.

## 0.00% Shuffle

Shuffle simulates shuffling by offseting every other delay.

## 8000 Hz

LPF controls the frequency of the low-pass filter. It is inside the feedback chain, therefore the effect of the filter becomes more prominent with each delay.

# **Feedback**

Feedback controls the amount of signal that gets fed back in to the delay's input.

# Delay

Delay controls the level of the deley signal.



#### Pitch

Pitch controls the pitch shift for the voice. When "Chromatic" scale is set, then the Pitch shift happens in semitones. When any other scale is set, the pitch will shift to the nearest available note from the selected scale.

## center Pan

Pan controls the stereo position of the delay and dry signals.

## silence Dry

Dry controls the level of non-delayed signal. This signal is still effected by the pitch shift.

## **Scale**

Chromatic

Scale selects from various scales to quantize the pitch values to.

# Key



Key selects the root note for the selected scale. Note, this has no effect when in chromatic mode.

# Single/Unison mode Single is the default mode with 1 voice per delay tap. Unison clones each voice and detunes them to create a rich wide chorus effect.

# Analog/Modern mode



Analog/Modern mode **Analog Tape** Simulates inaccuracies found in analog devices and subtle saturation. **Modern Digital** Crystal clear delays and stable pitch



#### Dry/Wet

Dry/Wet controls the mix of the delayed signal with the dry signal.

#### **Time graph**

Time graph button switches between the metering view and the time-graphs. The metering view provides an immediate view of the current values including a text representation. The time-graphs provide the same information over a period of time. Since different time-graphs often need different units, only the most important units are provided.

## Pause

Pause button pauses the processing.

# 8 Popup

Popup button shows a pop-up window and moves the whole metering / time-graph system into it. This is especially useful in cases where you cannot enlarge the meters within the main window or such a task is too complicated. The pop-up window can be arbitrarily resized. In metering mode it is useful for easier reading from a distance for example. In time-graph mode it is useful for getting higher accuracy and a longer time perspective.

# (U) Enable

Enable button enables or disables the metering system. You can disable it to save system resources.

## Collapse

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



#### Collapse

<>

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

Collapse

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

# **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.

# Installation, activation, introduction to audio plugins

# Installation

All MeldaProduction plugins are currently available for Windows and Mac OS X operating systems, both 32-bit and 64-bit versions. You can download all software directly from our website. Since the installation procedures for the two operating systems are quite different, we will cover each one separately.

The download files for the effects include all the effects plug-ins and MPowerSynth. During the installation process you can select which plug-ins or bundles to install. If you have not licensed all of the plugins in a bundle then you just need to activate each plugin separately.

If you have multiple user accounts on your computer, always install the software under your own account! If you install it under one account and run it under a different one, it may not have access to all the resources (presets for example) or may not even be able to start.

# **Installation on Windows**

All plugins are available for VST, VST3 and AAX interfaces. The installer automatically installs both the 32-bit and 64-bit versions of the plugins.

Note: Always use 32-bit plugins in 32-bit hosts, or 64-bit plugins in 64-bit hosts. 64-bit plugins cannot work in 32-bit hosts even if the operating system is 64-bit. Conversely, never use 32-bit plugins in 64-bit hosts. Otherwise they would have to be 'bridged' and, in some hosts, can become highly unstable.

You can select the destination VST plugins paths on your system. The installer will try to detect your path, however you should check that the correct path has been selected and change it if necessary. In all cases it is highly recommended to use the current standard paths to avoid any installation issues:

32-bit Windows: C:\Program files\VstPlugins

64-bit Windows: C:\Program files (x86)\VstPlugins *(for 32-bit plugins)* C:\Program files\VstPlugins *(for 64-bit plugins)* 

If your host provides both VST and VST3 interfaces, VST3 is usually preferable. If a plugin cannot be opened in your host, ensure the plugin file exists in your VST plugin path and that if your host is 32-bit, the plugin is also 32-bit, and vice versa. If you experience any issues, contact our support via info@meldaproduction.com

# Installation on Mac OS X

All plugins are available for VST, VST3, AU and AAX interfaces. Installers create both 32-bit and 64-bit versions of the plugins.

If your host provides multiple plugin interface options, VST3 is usually preferable. If you experience any issues, contact our support via info@meldaproduction.com

Most major hosts such as Cubase or Logic should work without problems. In some other hosts the keyboard input may be partly nonfunctional. 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:

C:\Users\{username}\AppData\Roaming\MeldaProduction

OSX:

Macintosh HD/Library/Application support/MeldaProduction/ HOME/Library/Application support/MeldaProduction

# **Performance precautions**

In order to maximize performance of your computer and minimize CPU usage it is necessary to follow a few precautions. The most important thing is to keep your buffer sizes (latency) as high as possible. There is generally no reason to use latency under 256 samples for 44kHz sampling rates (hence 512 for 96kHz etc.). Increasing buffer sizes (hence also latency) highly decreases required CPU power. In rare cases increasing buffer sizes may actually increase CPU power, in which case you can assume your audio interface driver is malfunctioning.

You should also consider using only necessary features. Usually the most CPU demanding features are oversampling and modulation of certain parameters. You can reduce modulation CPU usage at the cost of lower audio quality in Settings/Settings/Modulator protection.

# Troubleshooting

The plugins are generally very stable, there are known problems however.

# **GPU** compatibility

The software uses hardware acceleration to move some of the processing (mainly GUI related) from your CPU (processor) to your GPU (graphics processing unit). It is highly recommended to use a new GPU, as it will provide higher performance improvements, and update your GPU drivers. Older GPUs are slower and may not even provide required features, so the software will have to perform all calculations in the main CPU. We also have had extremely bad experiences with GPUs from ATI and despite the fact that software is now probably bulletproof, it is recommended to use NVidia GPUs as there has not been a single case of a problem with them.

If you experience problems with your GPU (crashing, blank/dysfunctional GUI), and that you cannot disable the GPU acceleration from the plugin's Settings window itself, download this file:

http://www.meldaproduction.com/download/GPU.zip

And place the GPU.xml included in the zip into

Windows: C:\Users\{username}\AppData\Roaming\MeldaProduction Mac OS X: ~/Library/Application support/MeldaProduction

# Memory limits of 32-bit platform

Most hosts are now 64-bit ready, however some of them are not or users willingly choose 32-bit edition, because the required plugins are not 64-bit ready yet. All our software is 64-bit ready. Please note that you must NOT use the 64-bit plugins in 32-bit hosts, even if you have a bridge. If you are stuck with a 32-bit host for any reason, note that there is a memory limit (about 1.5 GB), which you may not exceed. This can happen if you load too many samples or different plugins for example. In that case the host may crash. There is no other solution than to use a 64-bit host.

# Updating

You can use "Home/Check for updates" feature in any of the plugins. This will check online if there is a newer version available and open the download page if necessary.

To install a newer (or even older) version you simply need to download the newest installer and use it. There is no need to uninstall the previous version, the installer will do that if necessary. You also do not need to worry about your presets when using the installer. Of course, frequent backup of your work is recommended as usual.

# Using touch-screen displays

Touch screen displays are supported on Windows 8 and newer and the GUI has been tweaked to provide a good workflow. Up to 16 connections/fingers/inputs are supported. Any input device such as touch-screens, mouse, tablets are supported. These are the main gestures used by the plugins:

- Tap = left click
- Double tap = double click

- Tap & hold and quickly tap next to it with another finger = right click. Tap & hold is a classic right-click gesture, however that doesn't provide a good workflow, so came up with this method, which is much faster and does not collide with functionality of some elements.

# **Purchasing and activation**

You can purchase the plugin from our website or any reseller, however purchasing directly from our website is always the quickest and simplest option. The software is available online only, purchasing is automatic, easy and instant. After the purchase you will immediately receive a keyfile via email. If you do not receive an e-mail within a few minutes after your purchase, firstly check your spam folder and if the email is not present there, contact our support team using **info@meldaproduction.com** so we can send you the licence again.

To activate the software simply **drag & drop the licence file onto the plugin**. Unfortunately some hosts (especially on Mac OS X) either do not allow drag & drop, or make it just too clumsy, so you can use Home/Activate in any of the plugins and follow the instructions. For more information about activation please check the **online video tutorial**.

You are allowed to use the software on all your machines, but only you are allowed to operate the software. The licences are "to-person" as defined in the licence terms, therefore you can use the software on all your computers, but you are the only person allowed to operate them. MeldaProduction can provide a specialized licence for facilities such as schools with different licence terms.

# Quick start with your host

In most cases your host will be able to recognize the plugin and be able to open it the same way as it opens other plugins. If it doesn't, ensure you did installation properly as described above and let your host rescan the plugins.

# Cubase

Click on an empty slot (in mixer or in track inserts for example) and a menu with available plugins will be displayed. VST2 version is located in MeldaProduction subfolder. However VST3 version is recommended and is located in the correct folder along with Cubase's factory plugins. For example, dynamic processors are available from the "Dynamics" subfolder.

To route an audio to the plugin's **side-chain** (if it has one), you need to use the VST3 version. Enable the side-chain using the arrow button in the Cubase's plugin window title. Then you can route any set of tracks into the plugin's side-chain either by selecting the plugin as the track output or using sends.

To route **MIDI** to the plugin, simply create a new MIDI track and select the plugin as its output.

# Logic

Choose an empty insert slot on one of your audio tracks (or instrument tracks for example) and select the plugin from the popup menu. You will find it in the Audio Units / MeldaProduction folder.

To route an audio to the plugin's **side-chain** (if it has one), a side-chain source should be available in the top of the plugin's window, so simply select the source track you want to send to the plugin's side-chain.

To route **MIDI** to the plugin, you need to create a new Instrument track, click on the instrument slot and select the plugin from AU MIDIcontrolled Effects / MeldaProduction. The plugin will receive MIDI from that track. Then route the audio you want to process with the plugin to this track.

# **Studio One**

Find the plugin in the Effects list and drag & drop it onto the track you would like to insert the plugin to.

To route an audio track to the plugin's **side-chain** (if it has one), first enable the side-chain using the "Side-chain" button in the Studio One's plugin window title. Then you can route any set of tracks into the plugin's side-chain from the mixer.

To route MIDI to the plugin, simply create a new MIDI track and select the plugin as its output.

# **Digital performer**

In the Mixing Board, find an empty slot in the track you would like to insert the plugin to. Click on the field and select the plugin from the effects list.

To route an audio track to the plugin's **side-chain** (if it has one), choose the track you want to send using Side-chain menu, which appears at the top of the DP's plugin window.

To route MIDI to the plugin, simply create a new MIDI track in the Track view and select the plugin as its output.

# Reaper

Click on an empty slot in the mixer and a window with available plugins will be displayed. Select the plugin you want to open by double clicking on it or using Ok button.

It is highly recommended to select all MeldaProduction plugins in the plugin window the first time you open it, click using your right mouse button and enable "Save minimal undo states". This will disable the problematic Undo feature, which could cause glitches whenever you change certain parameters. To route an audio track to the plugin's **side-chain** (if it has one), click on I/O button of the side-chain source track in the mixer. Routing window will appear, there you click "Add new send" and select the track the plugin is on. In the created send slot select the channels (after the "=>" mark) for the send, in stereo configuration 3/4 for example. Note that this way the whole track receives the side-chain signal and all plugins with it. It is possible to send it to a single plugin only, but it is more complicated, please check the Reaper's documentation about that.

To route **MIDI** to the plugin, create a new MIDI track and do the same thing as with side-chain, except you don't need to change output channels.

## Live

In Session view, select the track you would like to insert the plugin to. At the left top of Ableton Live's interface, click on the Plug-in Device Browser icon (third icon from the top). From the plug-ins list choose the plugin (from MeldaProduction folder), double click on it or drag & drop it into the track.

The X/Y grid usually doesn't provide any parameters of the plugin. This is because the plugins have too many of them, so you have to select them manually. Check Live's documentation for more information.

To route an audio to the plugin's **side-chain** (if it has one), select the track you want to send to the side-chain and in the 'Audio To' menu, choose the audio track that has the plugin on it. Then in the box just below that select the plugin from the menu.

NOTE: Live does NOT support any interface correctly, it doesn't use the reported buses properly, hence it doesn't work with surround capable plugins. Therefore you need to use VST version, which reports only stereo capabilities by default.

To route **MIDI** to the plugin, create a new MIDI track and in the 'MIDI to' menu, choose the audio track that has the plugin on it. Note that in Live only the first plug-in on any track can receive MIDI.

# **ProTools**

In the mixer click an empty slot to insert the plugin to and select the plugin from the tree. The plugin may be present multiple times, once for each channel configuration (mono->stereo etc.). As of now ProTools do not arrange them in the subfolders, which is a workflow dealbreaker, but we cannot do anything about it. The huge empty space on top of each plugin window, which occupies so much of the precious display area, is part of ProTools and every plugin window and again we cannot do anything about it. In some cases you may experience CPU overload messages, in which case please contact Avid for support. Note that ProTools 10 and newer is supported. RTAS compatibility for PT9 and older will never be added.

To route an audio to the plugin's **side-chain** (if it has one), open the plugin, click on the *No key input* button in the plugin title and select the bus you want the audio taken from. You might need to remember the bus number, unless your ProTools version supports bus renaming. ProTools doesn't support stereo (or surround) side-chains at all.

To route **MIDI** to the plugin, create a new MIDI track and in the mixer click the output field for that track and select the plugin, which should already be in the menu.

# **FL Studio**

First make sure plugins are scanned, either a full scan through the Plugin Manager or an automatic fast scan when you open the Plugin Database section of the browser in FL. The scanned plugins will show up in the Plugin Database > Installed section of the FL browser. The Effects and Generators sections in the Plugin Database will show all "favorite" plugins. These can be checked and unchecked in the Plugin Manager or added in some other ways. These favorites also show up in the Add menu, the menu for the "+" button in the channel rack, when you right click an existing channel button to replace or insert, in the plugin slot menu in the mixer and in the plugin picker (F8). The menus with favorite plugins also have a "More" choice that will show all scanned plugins. The full explanation is in our help file, on the page **Installing Plugins**.

To route an audio to the plugin's **side-chain**, first set up the mixer: make sure the track you want to receive audio from is sent to the track the plugin as a sidechain (**help**). Then set up the plugin wrapper: choose the desired input on the **Processing tab** of the wrapper options.

To route **MIDI notes** to the plugin, first configure the sender: choose a MIDI port for the input device in the MIDI settings (for a hardware device), or an output port in the **wrapper options** (for a VST plugin that produces MIDI). For the receiving plugin, set the input port in the wrapper options to the same value you chose in step 1.

To route **MIDI controllers**, the procedure is different. The usual method in FL is to link CC messages to plugin parameters (**help file**). VST plugins will also have 128 CC parameters published (through the wrapper) that can be linkes this way. Those will send the specified CC MIDI message to the plugin, instead of changing a published parameter.

# GUI styles, editor modes and colors

MeldaProduction plugins provide a state of the art styling engine, which lets you change the appearance to your liking. The first time you run the plugins a style wizard will appear and let you choose the style and other settings. It may not be available in ProTools and other problematic hosts.

By default each plugin has a certain color scheme, which differs based on what kind of plugin is that. Also, sections of some plugins are colorized differently, again, based on what kind of section is that (this can be disabled in global settings). Despite you can change the colors anyhow you want, it is advantageous to keep the defaults as these are standardized and have predefined meaning, so just by looking at a plugin's color you can immediately say what kind of plugin and section is that. Same rules apply when designing devices for easy screens. This is the current set of colors:

Equalization, filtering = green Reverb, delay = brown/yellow Modulation = blue Distortion, limiting = red Stereo = cyan/yellow Time, pitch, unison... = purple/pink Tools = grey

Special colors: Synchronization = grey Detection = blue/green Side-chain = green Effects = red Advanced stuff = grey



# **About MeldaProduction**

The best sound on the market, incredible workflow and versatility beyond your imagination. We create the deepest and the most powerful audio plugins with unbelievable sound and tons of unique features you cannot find anywhere else.

# **Innovative Thinking**

At MeldaProduction, we make the most advanced tools for music production and audio processing. We get inspired by the whole range of tools from the ancient analog gear to the newest digital creations, but we always push forward. We've always felt the audio industry is extremely conservative, still relying on the prehistoric equipment making the job unnecessarily slow and complicated. That's why we invent new technologies, which make audio processing easier, faster, better sounding and more creative.

# **Sound Matters**

In the world full of audiophiles you just need superb audio quality. And that's why we spend so much time perfecting audio algorithms until they sound unbeatable. Everything from dynamic filters to spectral dynamic processing. Our technologies just sound perfect.

# **Inspiring User Interface**

Modern user interfaces must not only be easy and quick to use, but also versatile and the whole visual appearance should inspire you. MeldaProduction plugins provide the most advanced GUI engine on the market. It is still the first and only GUI engine, which is freely resizable and stylable. Our plugins can look as an ancient vintage gear, if you are working on old-school rock music. Or as super-modern

# Easy to Use, Yet Versatile

The only limit is your imagination. Our plugins are with absolutely no doubt the most powerful and versatile tools on the market. Yet we managed to make the plugins easy to use via the devices and smart randomization system. But when you are ready, you are one click away from the endless potential the plugins provide.

# **Never-Ending Improvements**

Most companies create a plugin, sell it and abandon it. We improve our plugins, add features, optimize... until there is nothing left to improve and there are no more ideas. Unfortunately that hasn't happened yet :). And the best thing is that the updates are free-for-life!

MeldaProduction was founded in 2009 by Vojtech Meluzin and is based in Prague, Czech Republic.

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