



d16 group  
AUDIO SOFTWARE

# REPEATER

## VINTAGE MODELLED DELAY



# User Manual

## Requirements

Software and hardware requirements of the product

### Windows PC

<b>OS version</b>	Win 7, Win 8, Win 10
<b>CPU</b>	2.0 Ghz with SSE (Multicore system 2.4 Ghz recommended)
<b>RAM</b>	4 GB (8 GB Recommended)
<b>Software</b>	VST / AAX compatible host application (32bit or 64bit)

### Mac OS X

<b>OS version</b>	OS X 10.7 or newer
<b>CPU</b>	Intel based 2.0 Ghz (2.4 Ghz recommended)
<b>RAM</b>	4 GB (8 GB Recommended)
<b>Software</b>	AU / VST / AAX compatible host application (32bit or 64bit)

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## Overview

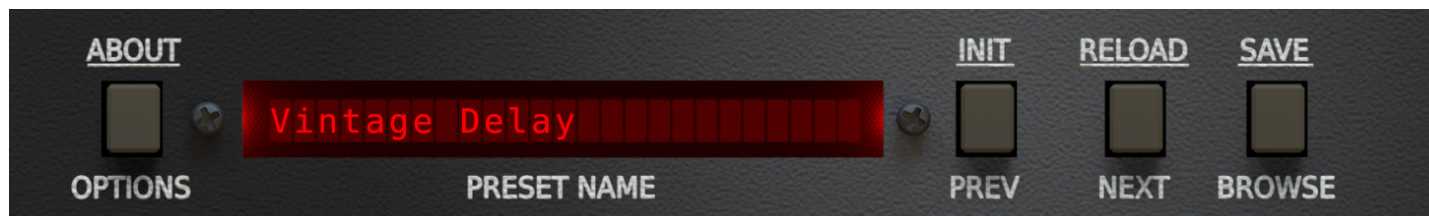
Repeater is a **stereo delay** type effect processor with independent control of processing path for *left* and *right* channels. It also emulates the nature and of many various hardware devices of this kind (including the classic effect units).

When the plug-in is loaded to the hosting application its graphic interface appears:



Repeater graphical interface

- Configuration and Preset management section:

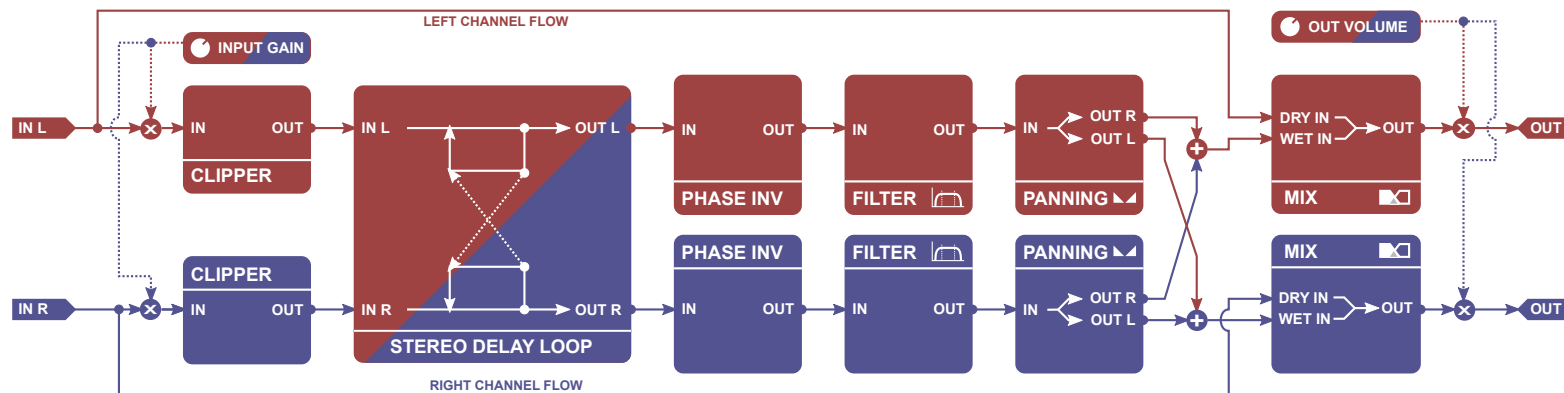


*Configuration and Preset management section*

- And the **Signal processing** section consisting of the all remaining controls.

## Signal Flow

In general, the **Repeater** processing path may be described as two independent paths; *left* and *right* channel. Each path has an independent delay line and additional (identical for each channel) processing blocks, which enrich the overall capabilities. This chapter focuses on the description of the processing path and its components or the individual processing blocks and the parameters that control them.



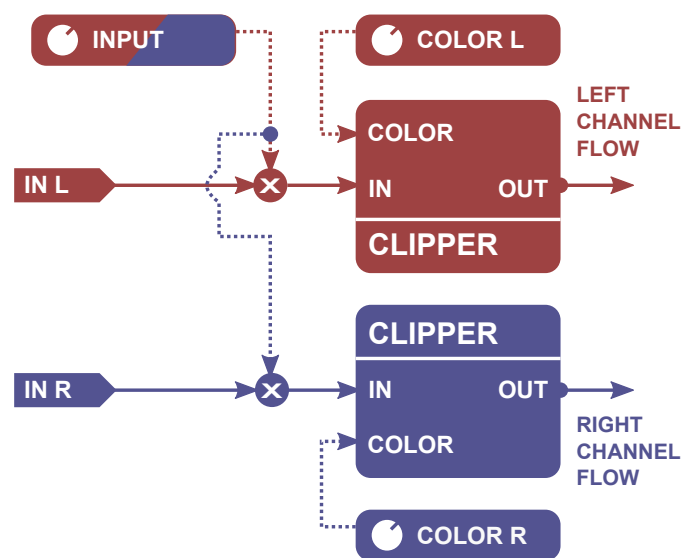
Schematic diagram of the entire processing path

Each processing block refers to the specific GUI section. The order in which the blocks are described in this chapter reflects the order in which the signal is processed by these blocks.

## Processing blocks before the feedback loop

### Preliminary amplifier and audio clipper

Before the signal is fed to the feedback delay loop it is processed by the audio clipper block which results in the signal saturation which intensity depends on the gain controlled by the **INPUT** parameter and the ingoing signal's amplitude.



*Pre-amplification and clipping blocks of the left and right channel*

## SIGNAL FLOW • PRELIMINARY AMPLIFIER AND AUDIO CLIPPER

The parameters that control this section are as follows:

- **INPUT** - Controls the input signal gain from -12 up to +12 [dB].



Input parameter

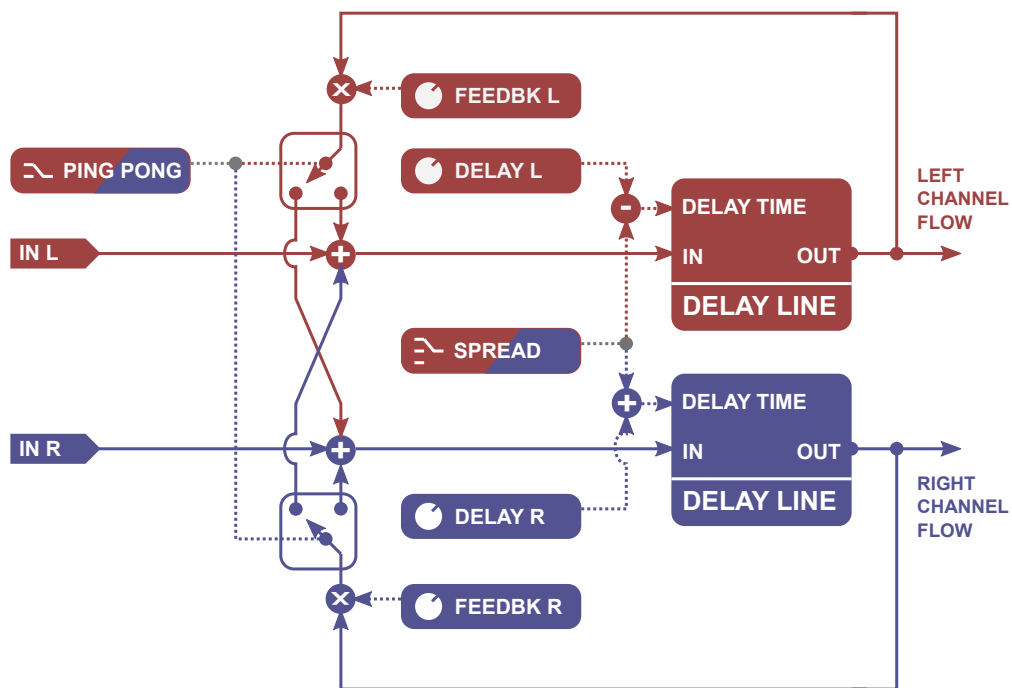
- **COLOR L, COLOR R** - The parameters that control the tone characteristics of the *left* and *right* channel audio clipper:



Left and right channel Color parameter

## Delay line with feedback loop

The **Clipper's** output signal is fed to the delay line with feedback loop;



Schematic diagram of Repeater delay line

Its operation is controlled by the following GUI section:





Repeater delay line parameter control section

## Delay line times

**DELAY L** and **DELAY R** control (independently) the line delay times of the *left* and *right* channel from **0.1** up to **1000 [ms]** (while tempo synchronization is disabled).



Delay L and Delay R parameters

## SIGNAL FLOW • DELAY LINE WITH FEEDBACK LOOP

Delay times may also be adjusted precisely by dragging the up-down mouse pointer above the digits representing the consecutive delay decimal position on the adjacent display:



Display with the current delay time for the left and right channel

### Tap

**TAP** is used to set the delay time “using ears” by clicking **TAP** rhythmically. The plug-in measures the time between the consecutive clicks, averages it and sets it as a new delay time.



Tap button

This function is available only for the tempo synchronization being disabled

### Synchronizing the delay line with the hosting application tempo

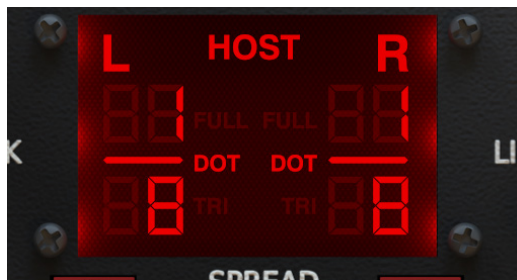
**SYNC. MODE** activates/deactivates the synchronization of the delay times with the hosting application tempo.



Sync. mode parameter

This parameter takes one of the two values:

- **NONE** - Synchronization with the hosting application tempo is deactivated (*default value*) and the delay times are set in *milliseconds*.
- **HOST** - Synchronization with the hosting application tempo is active. In this mode the delays are set as note values (tempo-dependent units). It should be mentioned that when this mode is active the display showing the delay values looks slightly different:



*Delay in the tempo synchronization mode*

**DELAY L** and **DELAY R** parameters allow to select one of the following duration values for the delay time: **1/1, 1/2, 1/4, 1/8, 1/16, 1/32, 1/64** - for the *left* or *right* channel respectively.

Together with the **Note Value** we can select one of the three available **Modifiers** by clicking adequate area on the display (above).

- **Full** - Delay time equals the duration of the selected **Note Value** exactly.
- **Triplet** - Delay time equal to **2/3** of the duration of the selected **Note Value**.
- **Dotted**- Delay time equal to **3/2** of the duration of the selected **Note Value**.

*Keep in mind due to internal buffer's limitation maximum delay time can't exceed 10 seconds.*

Switching between **SYNC MODES** convert:

- From *note duration* to *delay time [ms]* when you switch from **Host** to **None**.
- From *delay time [ms]* to *note duration* when you switch from **None** to **Host** In this case plug-in tries to estimate the closest note (for a given tempo) value corresponding to the given delay time since it can't be a precise value.

## Spread

**SPREAD** is a *left* and *right* channel line delay time modifier. When this function is active a phase offset occurs between both delay lines, which makes an impression that the stereo scene is wider. The function operates with two intensity levels and is controlled with the **SPREAD** switch:



Spread parameter

It takes the following values:

- **OFF** – Function inactive.
- **A** – Function active with the lower intensity/smaller phase offset.
- **B** – Function active with the higher intensity/larger phase offset.

## Feedback

**Feedback** value of the left and right channel delay lines is controlled with **FEEDBACK L** and **FEEDBACK R**, respectively.



Feedback L and Feedback R parameters

## SIGNAL FLOW • DELAY LINE WITH FEEDBACK LOOP

### Analog mode

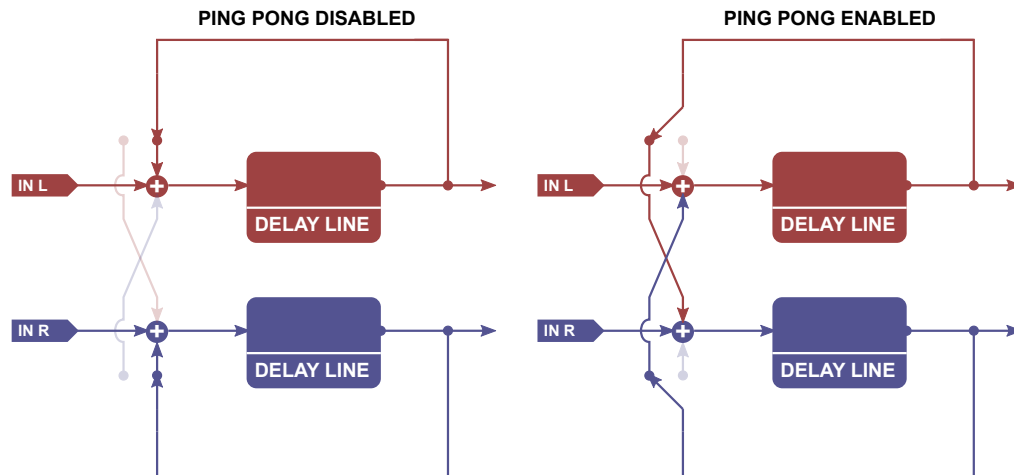
In this mode, the feedback loop works in analog-like fashion, which results in the sound becoming dimmer with each pass through the loop. **Analog** toggle button enables / disables this mode:



Analog button

### Ping-Pong

By default *left* and *right* channel delay line feedback loops are separated and operate independently (**PING-PONG** is inactive). When the **PING-PONG** is active the feedback loops of both stereo channels are connected crosswise; the *left* channel loop connects with the *right* channel summing node and vice versa:



Feedback loops – Independent / separated (to the left) and connected in the Ping-Ping mode (to the right)

The effect is switch on/off with the toggle **PING-PONG** button:



*Ping-Pong button*

## Processing blocks after the feedback loop

This chapter describes the operation and control of the blocks processing the signal outgoing from the feedback loop delay line.

### Phase inverter

The signal from the feedback loop is fed to the **Phase inverter**. This block allows the signal phase be reversed (signal mirror reflection relative to the time axis).



*Phase invert buttons*

The **PHASE INVERT** toggle buttons activate the **Phase inverter** for: *left* channel - upper button or *right* channel - lower button.

## Dual filter

The signal from the **Phase inverter** is sent to the **Dual filter**. This module consists of two passive filters, **Low pass** and **High pass** which operate in the cascade. They allow to remove the harmonic content outside the band specified by the cut-off frequencies of these filters:



*Dual filter frequency response*

The **Repeater** path includes two **Dual filters**, one for each stereo channel, which are controlled from the following GUI section:



*Filter cut-off frequencies for both stereo channels*



## SIGNAL FLOW • PROCESSING BLOCKS AFTER THE FEEDBACK LOOP

The parameters available here are as follows:

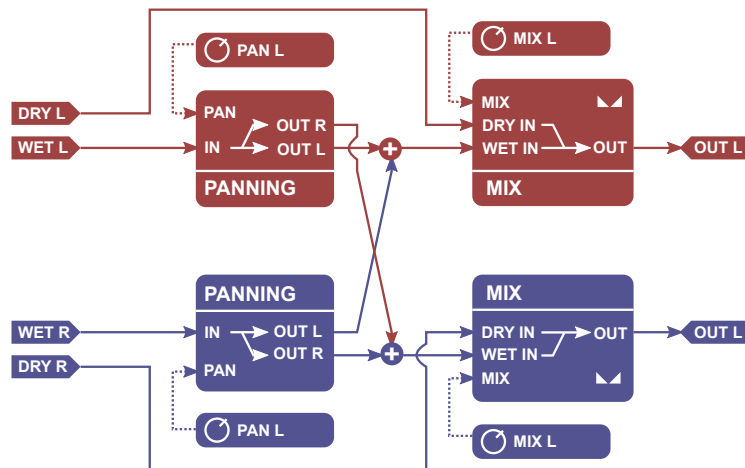
- **HPF L** – *Left channel High pass* filter cut-off frequency. Operating range from **40** up to **1000 [Hz]**
- **LPF L** – *Left channel Low pass* filter cut-off frequency. Operating range from **1** up to **22 [kHz]**
- **HPF R** – *Right channel High pass* filter cut-off frequency. Operating range from **40** up to **1000 [Hz]**
- **LPF R** – *Right channel Low pass* filter cut-off frequency. Operating range from **1** up to **22 [kHz]**

### Stereo mixer

The **Stereo mixer** is the subsequent block in the processing path. It has two functions:

Firstly, it provides independent panning of each stereo channel which actually implies that the **Repeater** may be considered as a delay effect with two independent processing paths rather than an effect with the stereo processing path with the independently controlled parameters of both (*left* and *right*) channels.

Secondly, it is able to mix the processed (**Wet**) signal with the unprocessed (**Dry**) signal independently for both stereo channels.



Signal flow through the Stereo mixer module

## SIGNAL FLOW • PROCESSING BLOCKS AFTER THE FEEDBACK LOOP

The **Stereo mixer** block is controlled from the following GUI section:



*Stereo mixer section*

The following parameters are available:

- **PAN L, PAN R** – Re-panning the signal of the *left* and *right* channel, respectively.
- **MIX L, MIX R** – Mixing together dry and wet signal for the *left* and *right* channel, respectively.

## Master section

The **Master** section is the last **Repeater** processing path's component:



*Master section*

Its parameter, **OUTPUT VOLUME**, is used to control the output signal gain from **-inf** up to **+12 [dB]**, and the VU-meter shown below (**OUTPUT METER**) indicates the current level of this signal.

## Delay line models

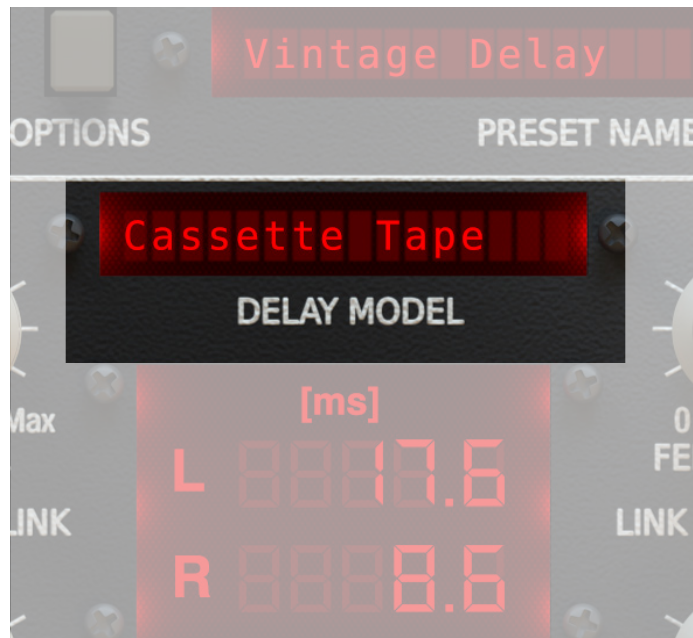
The previous chapters focused on specifying and describing the processing modules, which are the components of the **Repeater**; explaining their roles in this effect and their interconnections.

As already said at the beginning, the basic feature of the **Repeater** is its ability to emulate the tone characteristics of the whole variety of

## SIGNAL FLOW • DELAY LINE MODELS

delay devices by selecting the line **Model** to be emulated by the plug-in. However, in spite of appearances, it does not mean that the set of available parameters or interface change. It does not mean that the set of available processing blocks and/or their interconnections change either. The Repeater delay line Model affects only its tone characteristics and the lowest level of the processing path (processing blocks' implementation to be precise).

The **Model** is changed by clicking the **DELAY MODEL** control:



*Delay model parameter*

From the dialogue box we can select one of the several dozen of available items:

- **Cassette Tape** - A model of an early 80's Japanese cassette tape deck. Not too lofi or hifi, I'd call this one "mid-fi"!
- **Coopy Cube** - An early 70's delay originally made from a garden hose! Great for short delays to add depth, use it at 15ms with the Spread option

- **Digital 42** - One of the most famous modern digital delays, this one has a uniquely 'early digital' tone with a touch of graininess and a slight scoop. Sounds great on guitars and vocals.
- **Digital 42 x2** - The double option on the digital 42, it halves the sample rate for an extremely unique lofi tone that is great on vocals, guitars, and drums.
- **Digital Delay** - A hi resolution digital delay. Use RePeater's filters and color to customize the tone.
- **DM-2** - An early bucket brigade analog delay with a warm and rich tone. Amazing on guitars and synths.
- **Mellow Delay** - A smooth, subdued delay that is based on several vintage analog topologies.
- **Memory Guy** - Lush analog delay with fat vintage tone.
- **Mirky Delay** - Based on early bucket brigade analog delays, it is dark and thick. Great as a special effect delay or thickener when used with the Spread control.
- **New Radio** - Delay tone with FM radio style 'scooped' hifi tone. Try it on vocals.
- **Old Radio** - Delay tone with AM radio style grainy lofi tone
- **Pitchy Delays** - Delays with slight pitch modulations for extremely spatial and deep effects. Sounds great when both delay lines are set to the same time creating a chorusing mono effect. These can also be used with tight delays with Spread A or B for widening and thickening effects.
- **Plexy Echo** - Based on an old 70s tape delay unit. It's fat tone sounds great on vocals guitars and even drums.
- **Space Delay** - Based on the famous magnetic tape delay with warm and gritty tone. A classic on guitars.
- **Tape Delay Ancient** - An extremely old 1940's style tape delay tone.
- **Tape Delay Classic** - Early 60's style tape delay.
- **Tape Delay Modern** - Hifi tape delay with warm and lush tone.
- **Tape Delay Vintage** - 70's style tape tone, slightly grainy but warm.
- **Telephone 1** - Lofi telephone tone, great for special effects or used as an insert on vocal or even full mix
- **Telephone 2** - Another lofi telephone tone with slightly different frequency and distortion tone
- **TelRay** - The analog delay classic made original from a tuna can. Beautifully lofi with a rich tone that is perfect for guitars.

## SIGNAL FLOW • STEREO LINK

The individual delay line **Models** directly affect such plug-in operation aspects as:

- *Implementation of the delay line alone* - thus affecting its tone characteristics which is connected with the signal degradation, possible detune or saturation.
- *Feedback loop attenuation frequency response*
- *Dual filter calibration*
- *Feedback loop response*

### Stereo link

The **Repeater** processing paths and blocks are identical for *left* and *right* channel. Owing to that, the sets of parameters controlling each of them are also identical. The GUI controls are located so that it is easier to see which parameters control the *left* or *right* channel path. So the upper row contains the controls for the *left* channel and the bottom row - for the *right* channel:



The upper row controls the left channel parameters and the bottom row - the right channel.

It is possible to link up the up-down parameters in pairs so that the given parameter value is identical for both channels. You can do it with the **LINK** LEDs located in the middle of the interface:



*Link LEDs row to join the controls in pairs (left - right channel)*

When the connection is enabled (LED is on) the controls are interconnected and any change of the value of one of these controls automatically changes the value of other control.

Win ( **Ctrl** + **Link** ), Mac ( **Cmd** + **Link** ) - Links / Delinks all stereo control pairs.

## Preset Management

### Preset Storage

Presets, both those from the **Factory** content, and **User** ones, are stored as files in proper locations on a disc. Each time the plug-in instance is loaded to the project, these locations are scanned and presets found there are consolidated into one linear structure (list) in the **Preset Browser**.

### Browsing Presets

**Presets Configuration and Management** section enables quick navigation and browsing the presets structure:



*Presets Configuration and Management Section*

- **PRESET NAME** – Displays the name of the currently loaded preset.
- **PREV / NEXT** – Buttons that allow for linear browsing of presets list (depending on currently set filters – see sections below).
- **INIT** – Win (  **Ctrl** ) + **PREV** ), Mac (  **Cmd**  ) + **PREV** ) – Restores initial settings of plug-in parameters.
- **RELOAD** – Win (  **Ctrl** ) + **NEXT** ), Mac (  **Cmd**  ) + **NEXT** ) – Reloads a current preset.



- **SAVE** – Win ( **Ctrl** ) + **BROWSE** , Mac ( **Cmd** ⌘ ) + **BROWSE** ) – Saves current parameters as a new preset or allows for overwriting of the existing one (see sections below).
- **BROWSE** – Expands the **Preset Browser** panel at the bottom of GUI section.

The **Preset Browser** looks as follows:



*Preset Browser*

One can see three main sections:

- **Content** – Sources from which presets can be read.
- **Filters** – Configuration of presets **Filters** (non-active by default).
- **Results** – List of presets from resources that meet criteria set by **Filters**.

## Resources

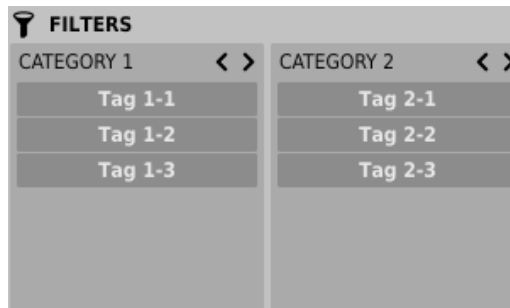
In this section you can choose a resource/resources in which you want to browse presets. There are two resources to choose from:

- **Factory** – Delivered together with the plug-in, cannot be modified (read-only).
- **User** – Created by the user during using the plug-in and can be freely modified, shared with other users etc.

Choosing any of them will cause narrowing the results to the presets from one resource.

## Preset Filters

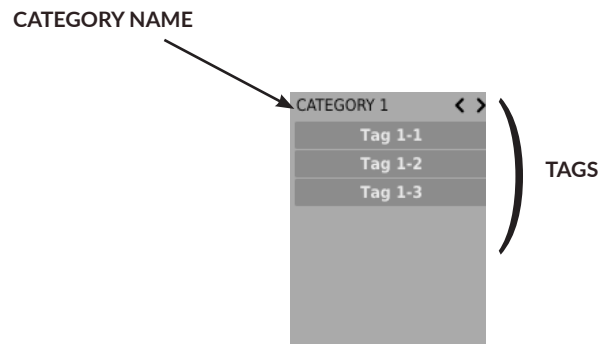
The plug-in enables classification of presets with the use of **Categories** and **Tags** system, whose aim is to facilitate the process of browsing the content by filtering.



*Preset Browser Categories Filters*

## Categories and Tags

Each preset is described by a few common **Categories**. Within each of them there may be one or more **Tags** from a particular set.



*A single category in a filter with a description of its elements*

Presets from **Factory** resource were described by **Categories** and **Tags** during the stage of its creation. **Categories** and **Tags** are chosen in such a way so as to describe the content in the best possible way, taking into account the plug-in purpose.

Editing of **Categories** and **Tags** in case of **Factory** content is not possible – it is blocked. **User** presets may be described only with **Categories** and **Tags** from factory content or, alternatively, the users may define their additional **Tags** in order to describe their own pre-sets.

## Results

This is a list of presets from chosen resources that meet the filtering criteria. The basic function of this section is browsing and loading presets (in **Browsing Mode** – by default).



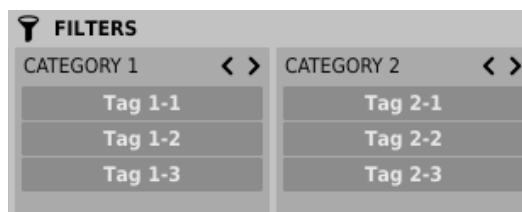
Results Section in Preset Browser

Click any name to choose and load the preset.

Double-click the name to enter preset name edit mode. ▶

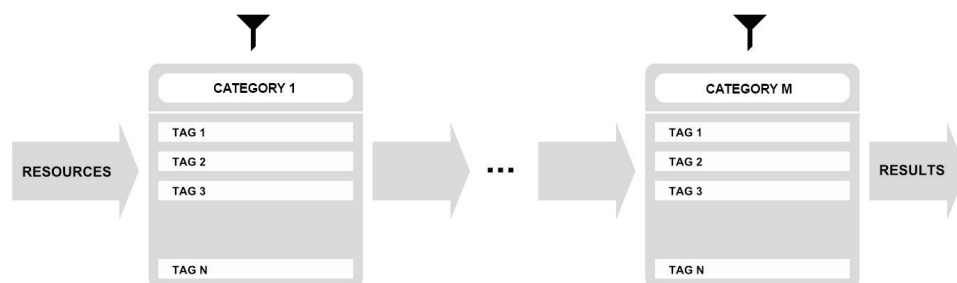
## Presets Filtering

**Filters** section columns represent particular **Categories** – **Category filters**, while rows in each of these columns represent **Tags** available within each **Category**.



Preset Browser Categories Filters

Filtering results have a form of a cascade (columns), from left to right. This means that all presets available in the selected resources are filtered as to presence of **Tags** from the first **Category** (first column from the left), next a set of presets being a result of filtering by the first **Category** is filtered by the **Category** represented by the second column etc., until it is filtered with the last active **Category Filter**.



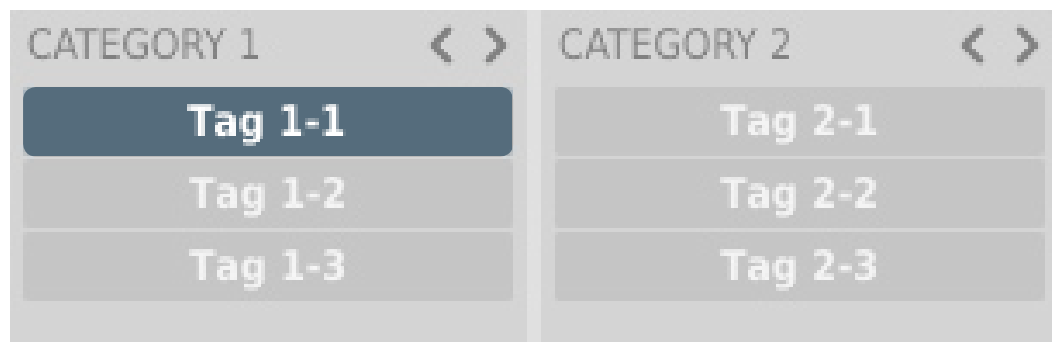
Presets Filtering with the use of Categories Tags

The result of a cascade filtering process (presets that meet the criteria of each filter) is listed below, in the **Results** section.

### Basic Actions on Filters

**Tag** buttons in **Filters** work in toggle mode. Click to activate/deactivate **Tag** (Grey color means that the **Tag** is inactive, teal blue means that the **Tag** is active). If at least one **Tag** in a column (**Category**) is active, then the **Filter** also becomes active.

For example, if the first column represents *Category 1* **Category** with a set of the following **Tags**: {*Tag 1-1*, *Tag 1-2*, *Tag 1-3*}, clicking the *Tag 1-1* **Tag** will activate the **Category Filter** *Category 1* and narrow down a list of presets to the items in case of which the *Tag 1-1* **Tag** appeared in the *Category 1* **Category**.



Enabling Tag 1-1 tag in Category 1 Category

If you click the *Tag 1-1* item again, you will deactivate the **Filter**, so all presets from the content will be displayed again.

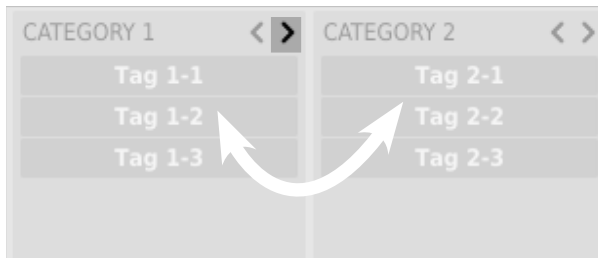
### Reordering Categories

To the right of the **Category Filter** header there are buttons with arrow icons:



*Filter reordering*

They enable moving the **Category** to the left or right in a cascade. Clicking the right arrow replaces the current **Category** with the **Category** on the right. Clicking the left arrow replaces the current **Category** with the **Category** on the left.



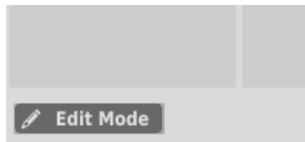
*Presets Filtering with the Use of Categories Tags*

Clicking the left arrow for the **Category** located on the far left does not change anything. The same is true for the **Category** located far to the right and right arrow (as the column has no predecessor/successor with which it could be replaced).

### Presets Editing - Edit Mode

An active **Edit Mode** in **Preset Browser** changes its function (enables the change of presets names, edition of **Categories** or **Tags**, deletion of presets as well as their export or import. One should bear in mind, however, that these operations are not allowed in case of **Factory** presets, but only for the **User** presets.

**Edit Mode** can be activated with a button located in the bottom left-hand corner (click again to deactivate):



Edit mode button

In this mode **Preset Browser** slightly changes its appearance (not only function):



Preset Browser in Edit mode

1. The **Filters** section changes into the **Edit Tags** section, whose appearance is almost identical, but the function is different. The section is used not as a filter, but as an editor of **Categories** and **Tags** of chosen presets.
2. The role of the **Results** section is to choose presets for edition (edition is possible only for user presets).
3. At the bottom of the screen there are **Delete**, **Export** and **Import** buttons used respectively to delete or export selected **User** presets as well as to import a set of presets to the **User** resources.
4. The choice of the resource in the **Content** section does not work, as edition is possible only for user presets.

## Selection of Presets for Editing

You can edit both single preset and a set of presets. Using the functionality of the **Results** section, you can choose a preset or a set of presets in the following way:

- **Click the preset** – Choose the preset from the list,
- **Win** (  + **Click the preset** ), **Mac** (  + **Click the preset** ) – Add another preset to an already chosen preset or a set of presets,
- + **Click the preset** – Select a part of a list of presets from the last chosen preset to the item clicked together with  key.

## Tags Edition

### Change of Tags status in Presets

**Tag** buttons work in toggle mode, similarly as in case of filtering. Clicking them you can respectively set **Tag** or erase them from chosen presets.



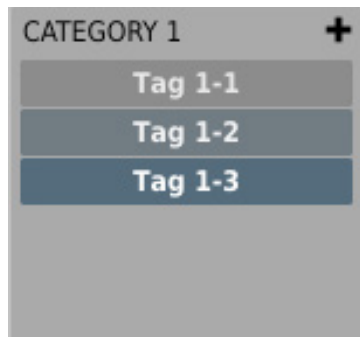
User	Tag 1-1	Tag 2-1
	Tag 1-2	Tag 2-2
	Tag 1-3	Tag 2-3

*Filters' tags*

Choosing a greater number of presets, in which the tags were already defined, enables their re-edition. Consequently; in case when a specific **Tag** appeared in all selected presets, it will be marked with an intensive teal blue color.

When a specific **Tag** is set only in a part of chosen presets, then it is codified with a pale teal blue. The **Tag** that does not appear in any of the presets is marked with grey colour:





*Notification about Tags Status in Chosen Presets*

The change of the **Tag** status for one or more chosen presets sets or erases this **Tag** in all these presets. The status change is signaled with an **Asterisk** located to the left of the **Tag** buttons .



*Notification about Changes in Tags Status in Chosen Presets*

Elements/**Tag** buttons highlighted with pale teal blue colour (meaning different values of a particular **Tag** buttons for the highlighted pre-sets) work in a three-state system; erasing the **Tag** (grey colour), setting of the **Tag** (intensive teal blue colour) or no changes (pale teal blue) for all selected items.

Changes introduced during edition do not have to be confirmed, they are signaled by asterisks located by **Tag** changed for particular presets

### Presets Names Editing

Double-click the name of a preset to enter name editing mode.

### Deleting Presets

Selection of one or more presets activates **Delete** button at the bottom left corner. It can be used to delete the selected presets.

### Presets Export and Import

The use of **Import** or **Export** buttons at the bottom part of the **Preset Browser** enables a proper import of presets package (exported before) or export to the presets package ▣ the presets selected in the **Results** section.

▣ Export and Import are possible only for presets from User resources.

## Saving the current settings as Preset

To save plug-in parameters settings as a user preset use the -Win ( **Ctrl** + **BROWSE** ), Mac ( **Cmd** + **BROWSE** ) in **Configuration and Presets Browsing** section. This action automatically opens the **Preset Browser** with an active **Edit Mode**.



*Saving the Settings as Preset*

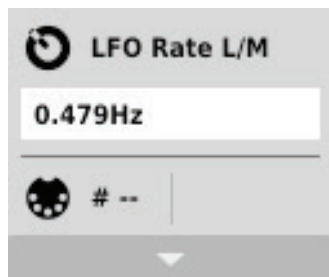
Additionally, at the bottom there will be a textbox into which you should enter a name of a newly created preset, and then confirm it by clicking **Save** or cancel by clicking **Cancel**.

As the **Preset Browser** is in the **Edit Mode** before confirmation of the newly created setting as preset, we can straightaway categorize a particular setting, using functionality of the **Edit tags** section, even just before saving it as **Preset**.

## Configuration

### Parameter settings

Right-click any plug-in parameter to open the context menu



*Closed Context Menu*

It allows for:

- Checking the name and current value of a parameter,
- Checking if the parameter is attributed to MIDI CC controller, and if it is – to which number,
- Linking the parameter to MIDI CC controller.

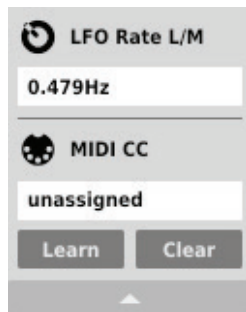
Clicking the arrow in any area of the menu expands it and displays all available options.

Next right-click on the parameter or left-click outside the menu area closes it automatically.

## MIDI Learn

**MIDI Learn** function enables a quick assignment of physical controllers (from MIDI controller) to plug-in parameters. The assignment can be divided into a few steps:

1. Right-click the parameter which you want to attribute to physical MIDI controller in order to expand the context menu.
2. Click arrow at the bottom in order to expand the context menu.



*Expanded Context Menu*

3. Click the **Learn** button to put the plug-in into a pending state until you move any MIDI CC controller.
4. Click **OK** to save the change or click the **Cancel** button to restore the previous setting.

### MIDI Unlink

You can also delete MIDI CC code attributed to plug-in parameter from the context menu:

5. Open the context menu, right-clicking the parameter attributed to a particular MIDI CC
6. Expand the menu, using the arrow at the bottom
7. Click the **Clear** button
8. Confirm with **OK** button

### Plug-in's current settings

**Current settings** are relevant to a specific instance of a plug. They are initialized with the **Default settings**, when the plug-in is loaded (see the next chapter):

At the bottom of UI there is a status bar that enables the change of **Current settings**.



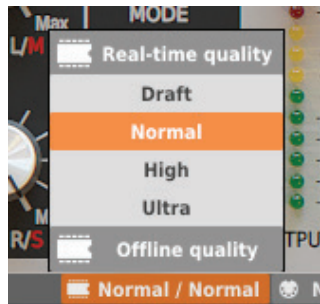
*Current Settings in a Status Bar*

From left to right there are:

- The setting of **Current processing path quality** for the **Offline** mode and the **Real-time** mode
- Saving/Loading the **MIDI CC Map**

### Processing Path Quality

Clicking the item expands the menu that allows to select the **Current quality** of generated sound for **Real-time** or **Offline** modes. In a case of Repeater the quality setting doesn't affect the delay loop, but audio clipper only.

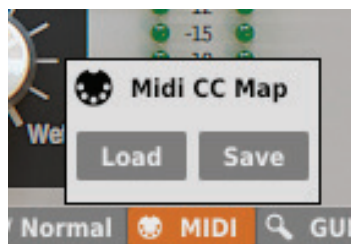


*Processing Path Quality Settings*

We can choose from four available grades for each mode.

### Saving/Loading the MIDI CC Map

This item enables to save current parameters of MIDI CC codes as MIDI Map in a file or to load them.



*Saving/Loading the MIDI CC Map*

### Plug-in's default settings

The **Options** panel allows us to change the **Default settings** of the plug-in. Every time the plug-in is loaded in the host application (new instance is created) a **Default settings** are used for initialization of the **Current settings**.

**Default settings** are stored within a configuration file of the plug-in. This file is updated at the moment of unloading any of active plug-in instances from the host application.

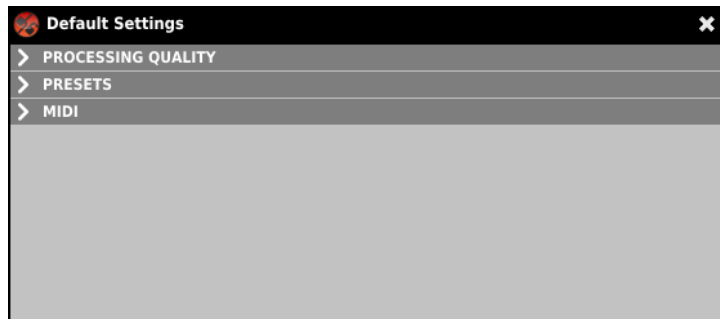
Use the **Options** button on GUI to open the panel:



*Options button*



The **Options** panel operates as an accordion where you can click a specific section to expand it:

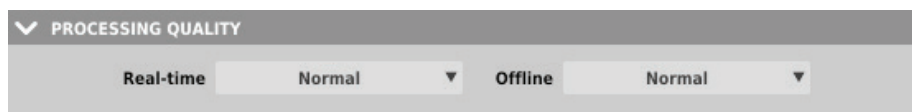


*Options Panel*

There are three sections:

- **Processing Quality** - Default Processing Path Quality
- **Presets** - Presets loading settings
- **MIDI** - Default MIDI CC Map

## Default Processing Path Quality



*Processing Quality Choice Section*

In this section you can configure a default quality of the processing path for the **Real-time** mode and the **Offline** mode.

### Default MIDI CC Map



*Default MIDI Map Choice Section*

This section allows for setting of a path to a file with a default **MIDI Map** that was prepared before. Clicking **MIDI CC Map** check box activates load of **MIDI Map** and the possibility of pointing it (**Browse** button).

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