

# Chameleon<sup>2</sup> Intelligent Reverb Matching



Chameleon is an intelligent reverb plugin which learns and imitates the room reverb of any source recording. After analysing a few seconds of audio, a reverb profile is built which exactly models the original room conditions and which can then be applied to match a dry studio recording. The ideal time-saving tool for ADR oder foley matching.



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# Specifications and system requirements

# Supported sample rates:

44.1kHz,48kHz,88.2khz,96kHz,192kHz

Supported channel layout:

Mono/Stereo

Plugin formats: AAX, VST3, AU

Generally, the plugin should work with most plugin host softwares. It has been tested and is officially compatible with: Reaper, ProTools 11 or higher, Nuendo, Cubase, Ableton Live.



# MINIMUM SYSTEM REQUIREMENTS

Windows 7 (64-bit), 4 GB RAM, Dual-Core CPU 2GHz Max OS X 10.12, 4 GB RAM, Dual-Core CPU 2GHz

**Specifications** 



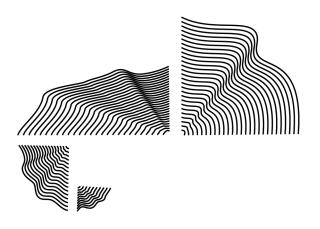
# About

Chameleon is an intelligent reverb plugin which learns and imitates the room reverb of any given source recording. After analysing a few seconds of audio, a reverb profile is built which exactly models the original room conditions and which can then be applied to match a dry studio recording.

Internally, artificial neural networks are being used to estimate the length and the frequency-depended decay of the reverb tail. In the development process more than 30.000 different reverb conditions have been used to let the algorithm learn how to handle and imitate different recording scenarios.

Chameleon also estimates the Dry/Wet ratio to exactly match the amount of the reverb which is present in the target recording. Additionally, there is set of customisation parameters which let you modify and change the reverb sound according to your needs.

The reverb matching can not only be used for ADR and foley matching but also for instrument recordings and creative sound design.



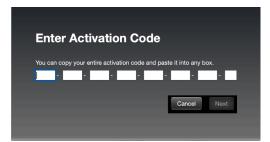


# **Installation and Activation**

The plugin is distributed with an easy to use installer. In the installation process the usual audio plugin paths are set as a default. If you aren't using any custom path for your plugins you can leave everything as it is and just let the installer do its job. After the installation Chameleon should appear in the list of available plugins in your DAW.

To use Chameleon you will need to have a <u>free iLok account</u> and install the <u>iLok license manager</u>.

After opening the iLok license manager app login to your account. Navigate to licenses and click "Redeem Activation Code". There you need to enter the code you received after purchasing the accentize plugin.



If you launch the plugin without activating it you will also see the option to use a 7-days free trial.



The plugin license can either be placed on an physical iLok dongle (2<sup>nd</sup> generation or higher) or directly on a machine.

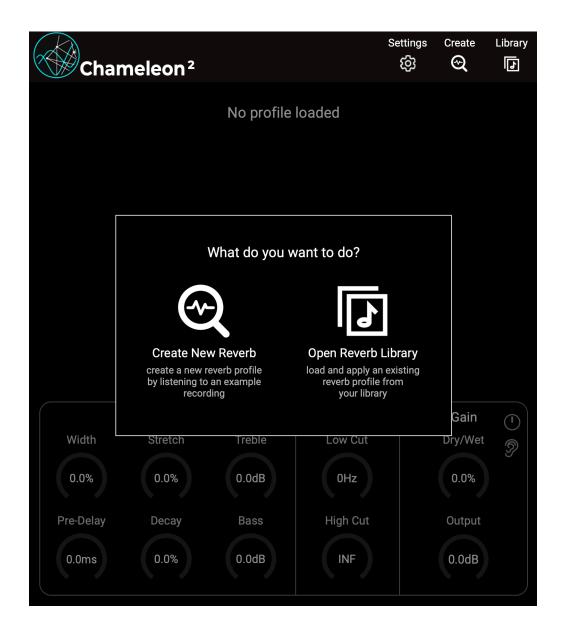
#### Installation and Activation



# **User Interface**

# **Start-Up Screen**

After launching the plugin the following screen will appear:



You have either the option of creating a new reverb profile by letting the plugin listen to some audio recording or you can open the reverb library to load an existing reverb profile.



# Creating a new profile

If you choose to create a new reverb profile the following screen will appear:



Chameleon is now waiting for audio to extract the reverb information. You can either play back audio or drag&drop an audio file on to the Chameleon logo in the center. You can also decide if you want to listen to the audio from the track where the Chameleon instance is being used or from a side-chain signal.

There are three other options:

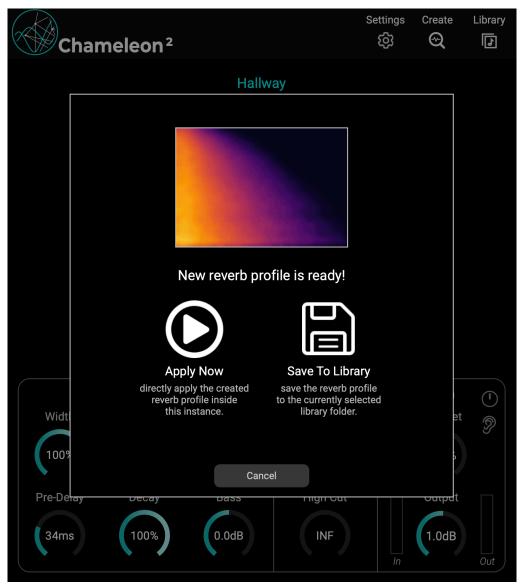
"force centred stereo": If activated the new profile will be balanced between left and right channel even if the presented reverberant audio wasn't. If you want to capture the exact same reverb as in the source audio keep it deactivated.

"estimate dry/wet gain": if activated Chameleon will estimate the amount of reverb content in the source recording and exactly match the dry/wet parameter. If you want to default new profiles to be always 100% wet deactivate this checkbox.

"Estimate pre-delay": This checkbox behaves the same way as for the dry/wet estimation. If deactivated the pre-delay will default to 0ms.



After the signal has been received and analysed the following screen will appear:



Here you can decide whether you want to save the profile to your library for later use or if you directly want to apply the profile in the current plugin instance. If you press apply now you will also have the option to save it at a later point.

After pressing "save to library" you need to define a name for the profile and optionally you can add some tags for better organization and navigation in your library. The profile will be saved to your currently active library location.



# **Profile Library**

After pressing the library button either in the initial plugin screen or in the top of the plugin the library will open in an extra window:

Global Set Project Folder	14 profiles found		≡∎
ingraf/Library/Accentize/Chameleon/Global Profiles 🛛 🖸 🛅	Select All Unselect All		Auto Close Automation Mode
Folders	★ 1.99s	☆ 1.99s	☆ 0.41s
Global Profiles			
- Project1			
- Project2			and the second sec
Add Sub-Folder	Room1 long_tail,long,dark	hallway long	car short
Filters Search Q search for name or tags Reverb Length Favorites	<b>☆</b> 1.918	<b>☆</b> 0.16s	☆ 1.99s
0 s - > 6 s only show favorites Reset	church long,bright	car2 inside.short	large space long.inside

On the left hand side you can select the location of your library folder. It can either be the default global location (which can changed in the plugin settings) or a custom project folder. If a project folder is set it will be shared between all active Chameleon instances and only needs to be set once.

There is also the option of creating sub-folders in your library for better organization. If a sub-folder is selected only its contained profiles will be visible. If the parent folder is selected all profiles of all subfolders will be visible.

In the "Filters" section you can filter the displayed profiles either by name, tags or set a lower and upper bound for the reverb length in seconds. You can also choose to only display your favorite profiles.

The right hand side of the profile library displays the currently found profiles. It can either be displayed in grid- or list-view which can be chosen with the two buttons in the upper right corner of the library window.



In both grid- or list-view hovering over a profile will display a few controls. There is a play-icon to load a profile, an export-button to save the profile as a wav file, an edit-button to change the name or associated tags, a favorite star-icon to mark this profile as favorite and a delete button to remove this profile form your library.



Room1

1.99s long\_tail,long,dark

\star select 🕑 🖍 🗙

Above the displayed profiles a header-bar with a few more controls is visible:

14 profiles f	bund		
Select All	Unselect All	Auto Close	Automation Mode

You can use "Select All" and "Unselect All" to control the selection of multiple profiles at once to load or export more than one profile at the same time. Also by clicking on the grid item or the select button in the list view individual profiles can be selected or unselected.

On the right-hand side of this header bar there is also the option to "**auto close**" which will close the library window after loading a profile.

"Automation Mode" can be used to load multiple profiles into one Chameleon instance to automate between them. If it is switched off a new profile will always replace the current one. If activated a new profile will always be loaded to a separate slot for automation. More info about this in **Automation** section.



# Applying a profile

After loading a profile the Chameleon UI will look like follows:





In the center you see the reverb visualization which displays the frequency-depended decay over time. At the bottom there are a set of customization controls:

Width	Stereo width of the reverb. Only active for stereo output tracks.	
Stretch	Modify the estimated length of the reverb tail. Negative values squeeze the tail whereas positive values stretch. 0% is neutral.	
Pre-Delay	The time in milliseconds until the reverb is mixed to the dry audio signal.	
Decay	Shortens the reverb by cutting off the end of the reverb tail. Note that this is different from negative STRETCH values, since the reverb is only cut and not squeezed.	
Treble	Boost or attenuate the high frequency content of the reverb. (High Shelf)	
Bass	Boost or attenuate the low frequency content of the reverb. (Low Shelf)	
	Sate Low Cut frequency to filter the reverb signal	
Low Cut	Sets Low Cut frequency to filter the reverb signal	
High Cut	High CutSets High Cut frequency to filter the reverb signal	
_		
Dry/Wet	Ratio for dry/wet mixing. Press the Ear Icon to listen only to wet signal component.	
Output	Make-Up Output gain to compensate for loudness changes	

When hovering over the profile name above the visualization a few controls to change the profile name, reload the original parameters, save and export the profile will appear:

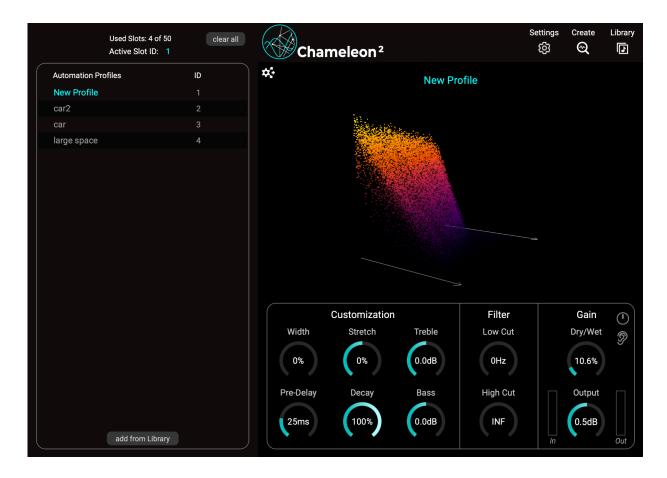




# Automation

It is possible to load up to 100 profiles into one Chameleon instance and automate between them using the "slot\_index" parameter.

To load multiple profiles you can either select more than one profile in the library and press "**load selected profiles**" or activate automation mode to load multiple profiles one by one to the automation slots. Once more than one profile has been loaded the main plugin UI will expand like this:



On the left you can see a list of all loaded profiles with the currently active profile marked. The ID column shows which slot\_index is currently assigned to each profile. When the slot\_index parameter takes on this value the corresponding profile will become active. You can change the assigned ID by clicking on it an choose a different number.



When hovering over an item in this list a few more controls appear:

$\bigcap$	Automation Profiles	ID
	Hallway	1
	car2	2
lacksquare	car	3 🖍 🖬 🗙
	large space	4

Pressing the play icon will change the current slot ID to this profile. The pencil icon can be used to change the name of the profile. With the duplicate button you can make an exact copy of this profile. This can be useful if you quickly want to have a similar version which just a few parameters changed. The xbutton will delete a loaded profile from the list.

#### Important:

Once a profile has been loaded from the library all changes (Name or Parameters) won't affect the original profile in the library. They will only be saved directly in the plugin instance and only after resaving the profile to the library the changes can be stored to the original library profile.

All loaded profiles don't depend on the library file where they were loaded from and also for reloading your session the library files are not required anymore. This way it is easy to transfer a project to a new machine without having to worry about taking all library files with you.



# **Settings Menu**

After clicking on the settings icon in the top of the plugin UI a settings window will appear:

General	UI Settings	
Global Library Folder	UI Scaling: 150%	
Chameleon/Global Profiles reset to default	Visuals: 3D	
auto open library	Audio Settings	
auto close library	Lazy Loading: enabled	
automation mode	Latency: zero samples▼	

## **Global Library Folder**

This defines the location of your default global library folder. You can also set a folder location for each project in the Profile Library.

## **Auto Open Library**

If active the library will automatically open after creating a new Chameleon instance.

## **Auto Open Library**

If active the library will automatically close after loading a profile.

#### **Automation Mode**

If active a new profile will be loaded to a new automation slot and not overwrite the currently used profile.

## **Plugin Latency**

In the settings menu there is a selector for defining the plugin latency. The latency does NOT affect the processing at all. It only affects the CPU load and for very long reverb tails a higher latency will significantly reduce the CPU consumption. The introduced latency will completely be compensated by the DAW to keep the tracks in sync.

## Lazy Loading

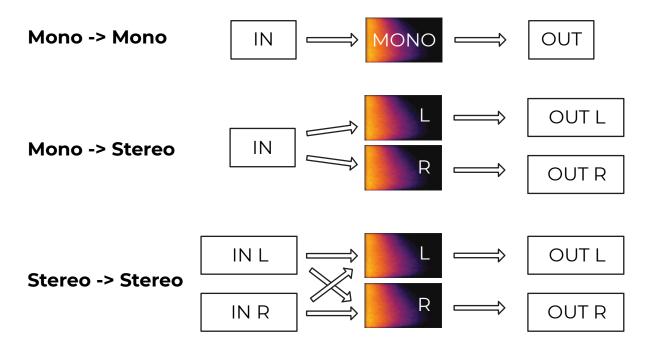
There is also a switch for activating and deactivating "Lazy Loading". As a default it is activated.

"Lazy Loading" loads profiles in parallel to the audio processing thread and helps to reduce the CPU consumption while switching profiles or changing the parameters. If it is switched off, there might be CPU spikes and audio dropouts may occur. Switched on, the load timings may vary a few milliseconds which is usually not noticeable. For the final render the lazy loading setting will be ignored and will be always switched off internally to ensure exact load times for profile automation etc.



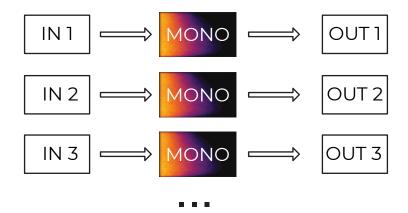
# **Channel Configurations**

The supported channel configurations are:



Additionally there is the option to load Chameleon to a multichannel track which will make it operate in Multi-Mono mode:

## Multi-Mono -> Multi-Mono



In this mode all input channels are processed separately and there will be no inter-channel effects. This mode can be useful when used on a bus to process several mono signals with the same reverb profile and keeping them all as separate signals.

Profile creation is only possible with Mono or Stereo inputs.

If running in Multi Mono mode it is indicted in the center of the header bar.



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