COLORIZER

1.0.0

What is it?

"Colorizer" is a MIDI-controlled polyphonic resonator. It allows the input signal to resonate at multiple frequencies at the same time, according to the notes played by the user. It also allows to control the dynamics of the processed signal thanks to an amplitude envelope. It works both on stereo and mono tracks.

What is in this package?

The .zip file includes the current file (user manual), the Changelog.txt file which describes the differences between the various versions and the VST plugin file, which is exclusively available in the VST3 64bit format for Windows:

	VST3		Standalone	
	32 bit	64 bit	32 bit	64 bit
Mac OS	✗	✗	✗	✗
Windows	✗	✓	✗	✗

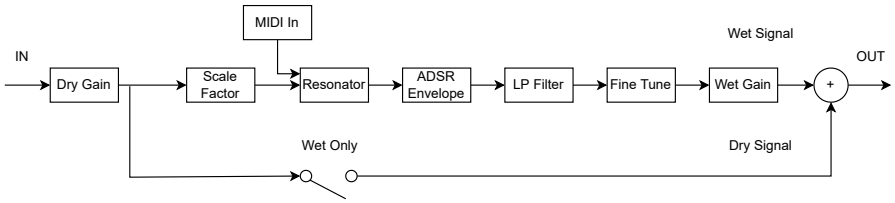
How do you install it?

The installation process is straightforward and only requires to copy the respective plugin file into the following folder:

Plugin Format	Folder type	Windows installation path
VST3	Shared	C:\Program Files\Common Files\VST3

How do you use it?

The knobs, sliders and buttons on the GUI can be used to adjust the parameters of the processing units pictured in the following diagram:



Note: "Scale Factor" is an internal, non adjustable parameter

A proper setup of the MIDI input is required in order to make the plugin work; the setup procedure changes from host to host, thus it's different depending on which host is being used.

The maximum supported number of polyphony voices is 8.

Note: despite the maximum supported value for the feedback parameter is 1, it is recommended to keep that value below 1 in order to prevent the system from saturating.

Known limitations

Despite being executable at every sampling rate, the plugin works best at sampling rates of 44100 Hz and 48000 Hz.

The decrease of the low pass filter's cutoff frequency causes the resonator to lose some precision over the resonating frequencies. The maximum experienced precision-loss is 1 semitone down in relation to the played note and it happens when the cutoff frequency is below 650Hz.

This product has been developed by Christian Calderoni at the Laboratorio di Informatica Musicale of the Università degli Studi di Milano. It has been created as a BSc thesis project and has no commercial or marketing purposes. Thus, in no event shall the developer be liable to you or others for any potential issue leading to loss of data, damages of any kind and any other inconvenient resulting from any defect in the product. Check the laboratory website for further information: `https://www.lim.di.unimi.it`. Please contact christian.calderoni98@gmail.com to report any bug or to leave any comment.