

VeloScaler

User Guide



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Table of Contents

Introduction	4
System Requirements	4
Installation	4
Setting up VeloScaler in your DAW	5
Change scaling and skin	6
User Interface	7
User interface controls	8
Drop-down menus	8
On/Off switches	8
Numeric input boxes	8
Knobs	9
Editing Parameters	10
Input range and bands	10
Minimum and maximum velocity	11
Scale velocity and randomization	11
Scaling mode	11
Absolute	12
Percentage	12
Percentage Difference	12
MIDI Control / Automation	13
To assign a MIDI CC message with MIDI learn	13
To assign a specific MIDI CC message	13
To remove a MIDI CC assignment	13
Presets	14
To save a preset	14

VeloScaler - User Guide

To load a preset	14
To delete a preset	14
To open the presets folder	14
To copy a preset to the clipboard	15
To paste a preset from the clipboard	15

Moving the data folder	16
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Introduction

VeloScaler is a VST plugin for controlling and modifying the velocity value of incoming MIDI notes. Use up to 5 different bands, filtered on either the incoming velocity or the MIDI note number. You can set a minimum and maximum value for each band, and scale the velocity by a specified value (either an absolute value, or as a percentage), which can be randomized. This will create interesting variations if your destination instrument is set to respond to velocity.

System Requirements

To use VeloScaler you need a VST2 compatible 64-bit DAW (Digital Audio Workstation) running on Windows Vista, Windows 7, Windows 8, Windows 10 or Windows 11.

Installation

To install VeloScaler, simply open the downloaded zip file and extract the dll file to your VST plugin folder.

Setting up VeloScaler in your DAW

VeloScaler is a MIDI only VST plugin. It does not produce any sound of its own. You need to set it up so it receives MIDI data, and then route the MIDI output to the desired instrument(s). How easy (or even possible) it is to do this depends on your DAW's MIDI routing capabilities.

NOTE: For VeloScaler to make any difference your destination instrument must be set to respond to velocity.

Generally, you should add VeloScaler to a new MIDI or instrument track. This is the same procedure you would follow adding any VST instrument in your DAW. Then you will have to route the output from VeloScaler to one or multiple VST instruments. If you are not sure how to do this, please refer to your DAW's documentation.

NOTE: For detailed instructions on how to set up MIDI routing in some popular DAWs, please see the [FAQ](#) on our website.

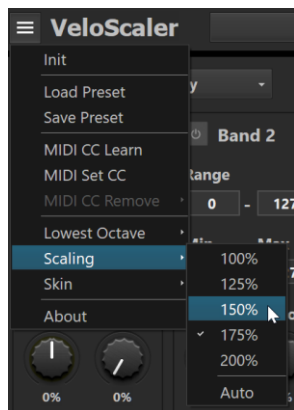
An alternative is to use a modular plugin that lets you route MIDI data between VST plugins, for example [DDMF Metaplugin](#), [Blue Cat PatchWork](#) or [ImageLine Minihost Modular](#).

Change scaling and skin

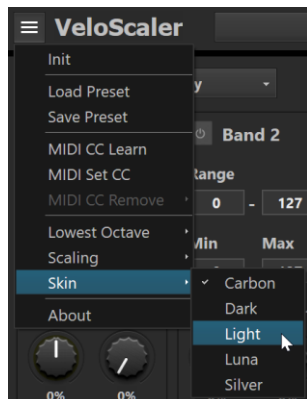
You can select between five different scalings: 100%, 125%, 150%, 175% and 200%.

In addition, you can select Auto. This will auto select scaling based on the current Windows scaling (and, if you move the plugin window between monitors with different scalings, the plugin scaling will automatically change).

To change scaling, select the desired scaling from the main menu.



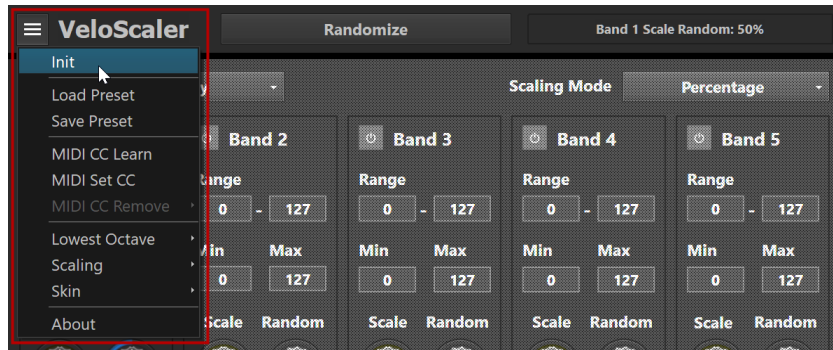
You can select between five different GUI skins from the main menu.



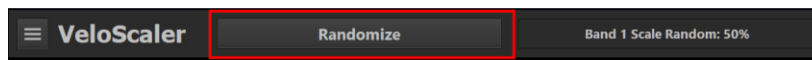
You must close and re-open the plugin window for the skin changes to take effect.

User Interface

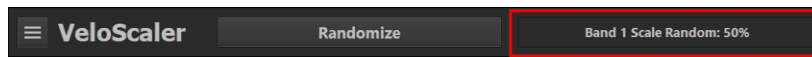
In the upper left corner of the plugin window you find the main menu. From this menu you can initialize the plugin (reset all parameters), load and save presets, configure MIDI CC assignments, customize the octave numbering, and change GUI scaling and skin.



In the middle you see the preset button. This shows the name of the current preset if it is named. Click this button to open the 'Load Preset' panel. For more information on how to work with presets, see the Presets chapter in this user guide.



In the upper right corner you see the info panel. This shows information about the parameter you are editing.

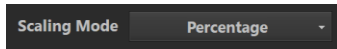


User interface controls

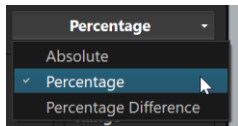
There are four basic types of user interface controls.

Drop-down menus

For example, Scaling Mode.

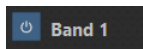


To select a value, simply click, then select from the drop-down menu.



Hold down the Ctrl key and click to select the default value.

On/Off switches



Simply click to turn the switch on or off.

Numeric input boxes

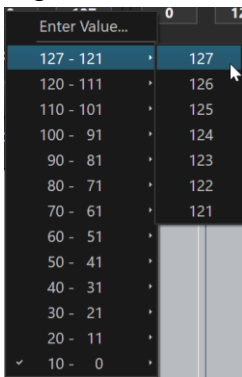
For example, Min.



There are several ways to change the value:

- Click with the mouse, then drag up (to increase the value) or down (to decrease the value). To slow down the selection, hold down the Shift key while you drag (fine tuning).
- Position the mouse cursor over the control, then use the mouse wheel.

- Right-click and select a value from the popup menu.



- Double click, or right-click and choose **Enter Value** from the popup menu, to manually enter a value.

Hold down the Ctrl key and click to select the default value.

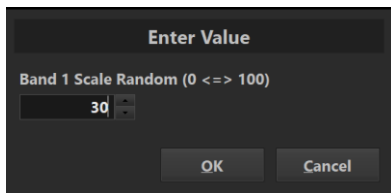
Knobs

For example, Random.



Click and drag down to decrease the value, or drag up to increase the value. To slow down the selection, hold down the Shift key while you drag (fine tuning). You can also use the mouse wheel to change the value.

To enter a specific value, double-click the knob, or right-click and choose **Enter Value** from the popup menu.

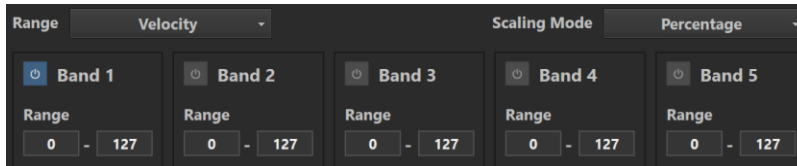


Hold down the Ctrl key and click to select the default value.

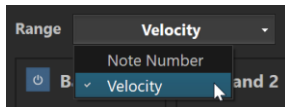
Editing Parameters

Input range and bands

You can use up to 5 different bands, based on either incoming velocity or note number, with different settings for each band.



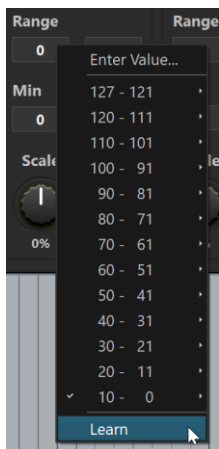
You select input range type by selecting either **Note Number** or **Velocity** from the Range drop-down menu.



To activate a band, make sure the on/off button is on.

In the two Range boxes, you specify the velocity / note number range assigned to this band. Both a velocity and note number must have a value between 0 and 127. For example, to set up a range for a band filtered by note number to process the lowest three octaves, set the range to 0 - 36.

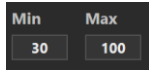
NOTE: If you filter by note number, you can right-click a range box and choose **Learn** from the popup menu, and then press a key on your MIDI keyboard to automatically set the corresponding note number.



Notes that do not match any of the band ranges will pass through the plugin unprocessed.

Minimum and maximum velocity

In the Min and Max boxes you specify the minimum and maximum velocity value for a specific band.



Scale velocity and randomization

You can scale the velocity, and apply randomization to make the result more unpredictable.

The scaling can be set to a value between -100 and +100, and the random value from 0 to 100.



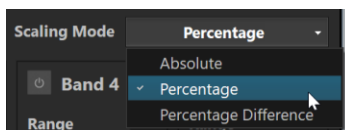
When you use randomization, the random value is added to the scale value to create the actual scaling value.

For example, if absolute scaling is selected (see below for more information on the various scaling modes), and you if you set the scaling value to -20 and the random value to 40, the actual scaling value will vary between -20 and 20. If the scaling value is set to 0, and the random value to 30, the actual scaling value will vary between 0 and 30.

Scaling mode

There are three different scaling modes: Absolute, Percentage, and Percentage Difference.

You select scaling mode from the Scaling Mode drop-down menu.



Absolute

The velocity is scaled in absolute velocity units.

For example, if the incoming note velocity is 70 and scaling is set to 20, the result is a velocity of 90 ($70 + 20$). If incoming velocity is 100 and scaling is -40, the result is 60 ($100 - 40$).

Percentage

The velocity is scaled as a percentage of the incoming velocity.

For example, if the incoming velocity is 50 and the scaling is set to 20%, the result is a velocity of 60 ($50 + 20\%$). If the incoming velocity is 120 and the scaling is -30%, the result is 84 ($120 - 30\%$).

Percentage Difference

The velocity is scaled as a percentage of the difference between the incoming velocity and the specified maximum, or minimum, velocity.

For example, if the incoming velocity is 50, maximum velocity is 127 and scaling is set to 50%, the result is 89 ($50 + 50\%$ of the difference between 50 and 127, that is 50% of 77, rounded to the nearest whole number). If the incoming velocity is 80, the minimum velocity is 20, and scaling is -30%, the result is 62 ($80 - 30\%$ of the difference between 80 and 20).

MIDI Control / Automation

VeloScaler can be remote-controlled / automated via MIDI messages from a hardware controller, or from your DAW. MIDI learn is used to assign MIDI CC (continuous controller) messages to VelloScaler's parameters (controls).

NOTE: You can assign the same MIDI CC to different parameters, but you cannot assign different MIDI CCs to the same parameter.

To assign a MIDI CC message with MIDI learn

1. Open the main menu and choose **MIDI CC Learn**.
2. Click on the control (for example one of the Scale knobs) you want to remote-control.
3. Move a knob or fader on your MIDI device.

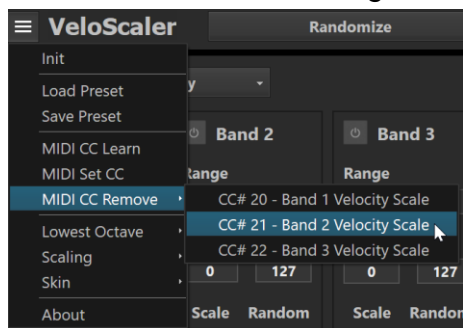
To assign a specific MIDI CC message

1. Open the main menu and choose **MIDI Set CC**.
2. Click on the control you want assign the CC message to.
3. Enter the CC message number (from 0 to 127), and click **OK**.

This is useful if you if you know the CC message number to assign, for example a standard CC message (like CC #1 for the mod wheel), or you use [CCStepper](#) to control parameters in VelloScaler.

To remove a MIDI CC assignment

1. Open the main menu and choose **MIDI CC Remove**.
This will open a sub-menu that shows all currently assigned MIDI CC messages.
2. Choose the MIDI CC assignment you want to remove.



Presets

To save a preset

1. Open the main menu and choose **Save Preset**.
2. Type the name you want to give the preset, and click **OK**.

The preset button shows the name of the preset you just saved.

NOTE: If you name the preset "init", it is automatically used when you choose Init from the main menu to reset the plugin parameters, or add a new instance of the plugin.

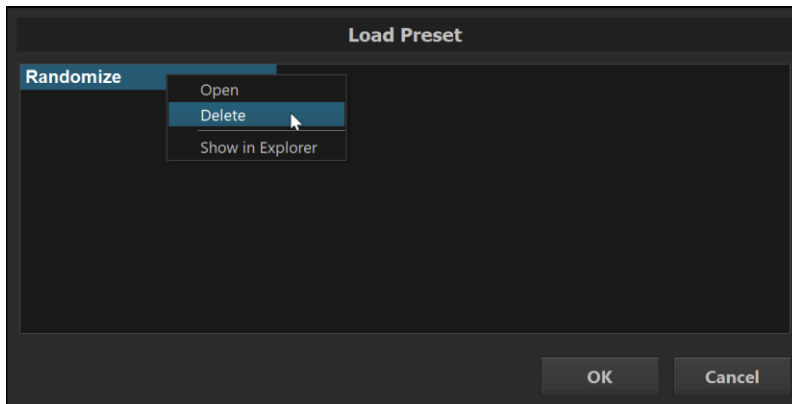
To load a preset

1. Either open the main menu and choose **Load Preset**, or click the preset button. You see the 'Load Preset' panel.
2. Select the preset you want to load and click **OK** (or simply double-click the preset name).

The preset is loaded, and the preset button shows the name of the preset.

To delete a preset

1. Open the 'Load Preset' panel.
2. Right-click the preset you want to delete, and choose **Delete** from the popup menu.



To open the presets folder

1. Open the 'Load Preset' panel.
2. Right-click the preset list and choose **Show in Explorer** from the popup menu.

To copy a preset to the clipboard

1. Open the main menu and choose **Copy Preset**.
The preset is copied to the Windows clipboard. You can now paste it into another plugin instance.

To paste a preset from the clipboard

1. Open the main menu and choose **Paste Preset**.
The preset is pasted from the Windows clipboard.

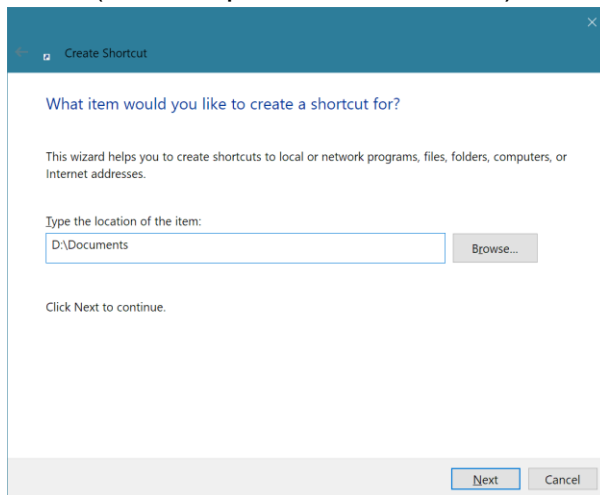
Moving the data folder

By default, the presets, and the plugin settings, are stored in your "Documents" folder in a subfolder named "\CodeFN42\VeloScaler".

The full path to the presets folder is usually
"C:\Users\[Username]\Documents\CodeFN42\VeloScaler\Presets".

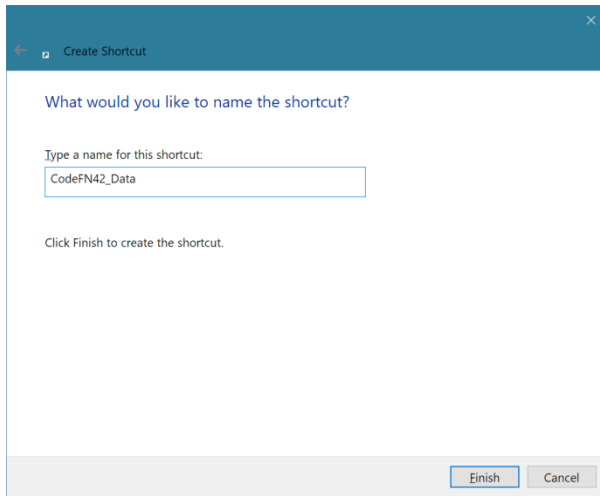
If you would like to move the data folder, you can create a shortcut file that links to a new folder location:

1. Right-click the Windows Desktop, and choose **Create Shortcut** from the popup menu.
2. In the 'Create Shortcut' window, click the **Browse** button and specify the new folder (for example "D:\Documents").



3. Click the **Next** button.

4. Name the shortcut "**CodeFN42_Data**", then click the **Finish** button.



The shortcut file is created on your desktop.

5. You must now move this shortcut file to either the Documents folder, or the folder the plugin is located in.

When you have done so, double-click the shortcut to make sure the correct folder is opened.

NOTE: All plugins from CodeFN42 use the same shortcut file. In the folder the shortcut links to, the VeloScaler settings will be stored in a subfolder named "`\CodeFN42\VeloScaler`" and the presets in "`\CodeFN42\VeloScaler\Presets`".

NOTE: You must manually move any existing preset files to the new preset folder.