

Overview

In a nutshell, Pen Pressure is a mechanism that manipulates the size and strength of a digital brush, we can think of it as an intermediary that takes the strength of your hand strokes and in return gives you certain "digital brush" values.

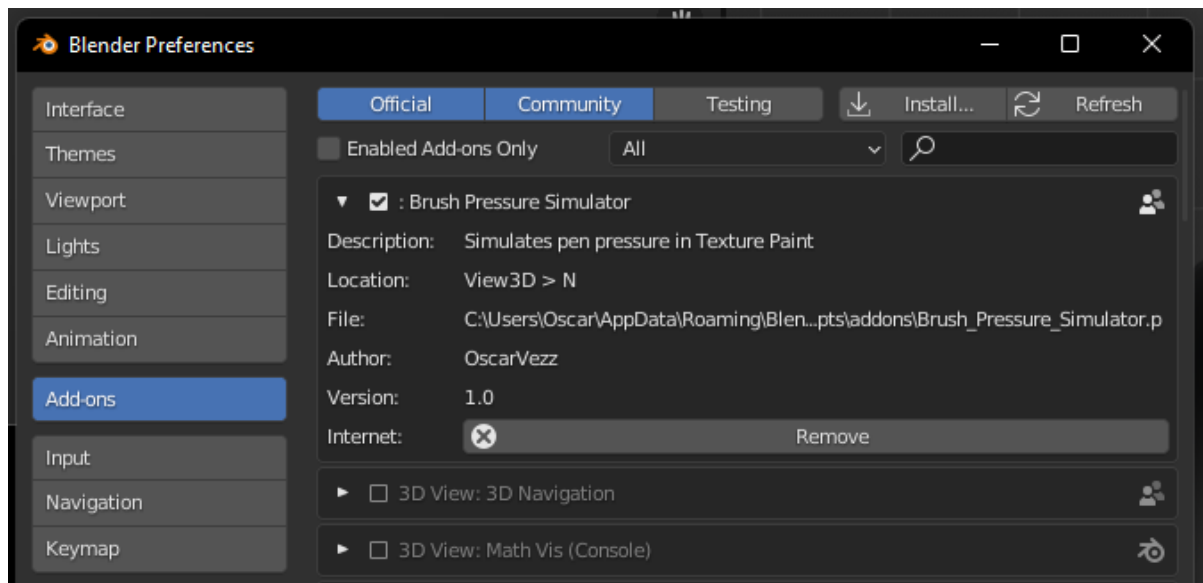
On the contrary, a mouse can only give you two values, either it is pressed or not, so its value as a dynamic brush is null. However, we can circumvent this problem if we detect extra keyboard keys to "jump" to other brush values.

Now this "jump" would be immediate, so all we have to do to give the illusion of transition is to make a gradual change over a period of time.

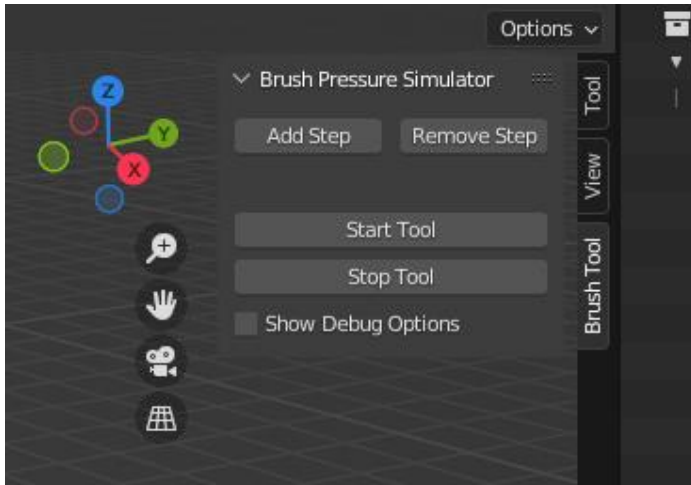
That's exactly what this tool does, it lets you define different "Brush Jumps" or "Brush Steps" that contain the new Brush Size and Strength, and the Time that it will take to change the Brush once you press the extra keys on the keyboard.

How do I add new Brush Steps?

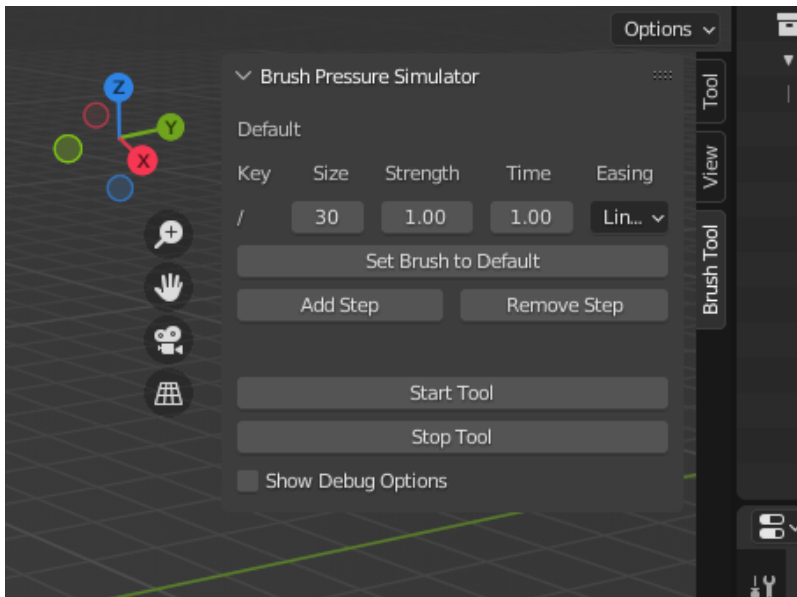
Once you have downloaded and installed the addon:



A new tab will appear under the Tool section. Here is where you can add new Brush Steps.

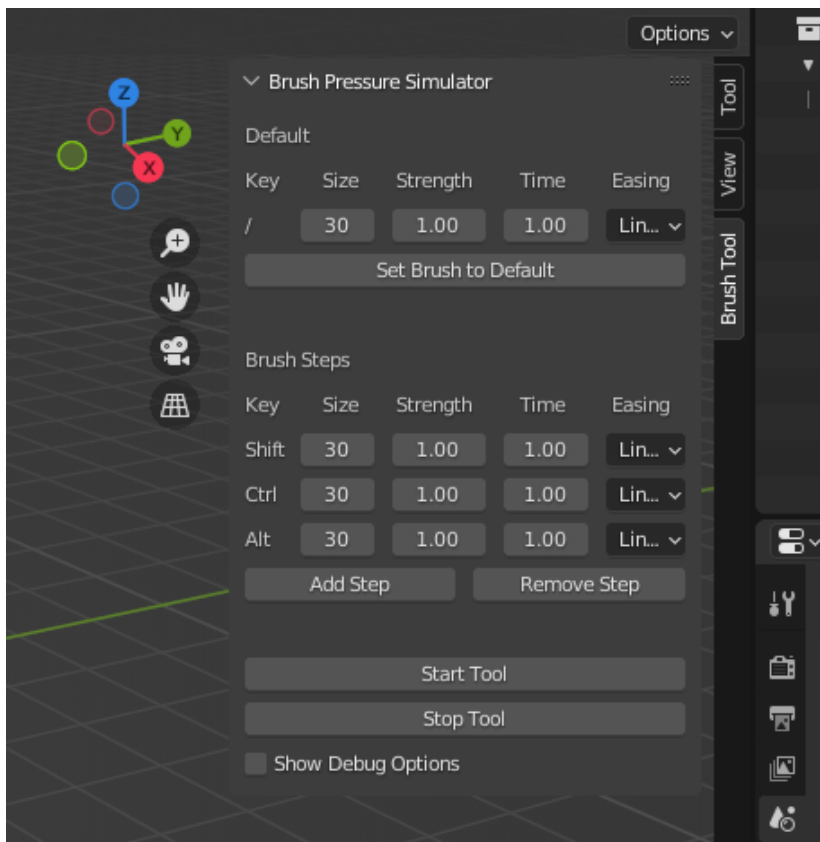


Your first Brush Step will always be defined as your **Default One**. Once you **Start the Tool**, it will try to reach the **Brush Size** and **Brush Strength** you have defined, in the time you have defined **between Brush changes**.



You can always change the Blender brush values to the Default one by pressing the "**Set Brush to Default**" button.

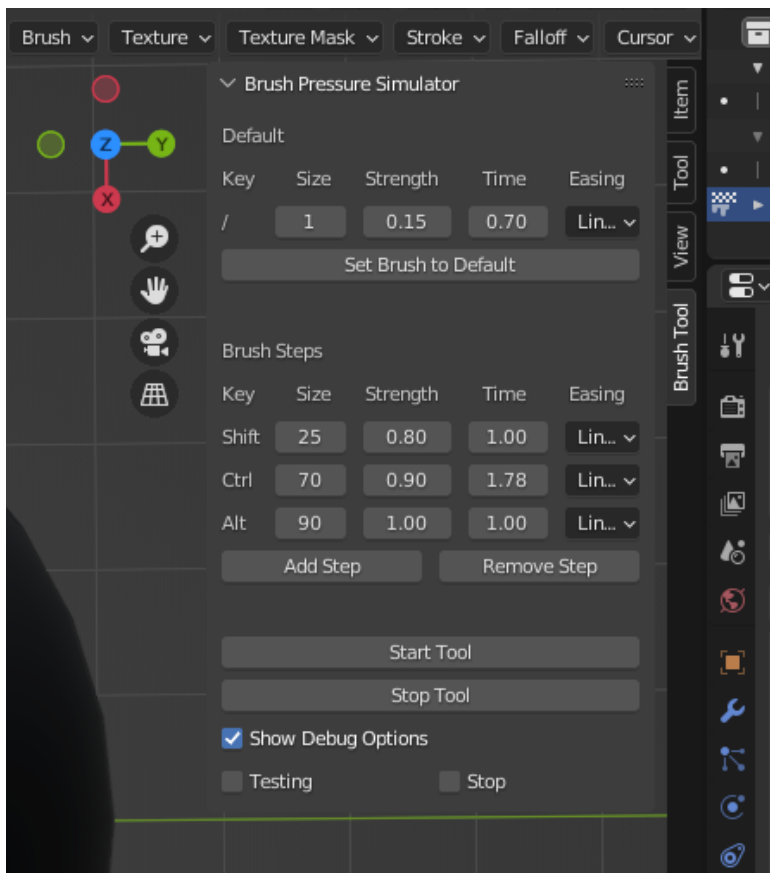
Adding more **Brush Steps** will create more fields in which you can define new **Brush Properties**. These brushes come with their own **Trigger Shortcut Keys** defined on the side.



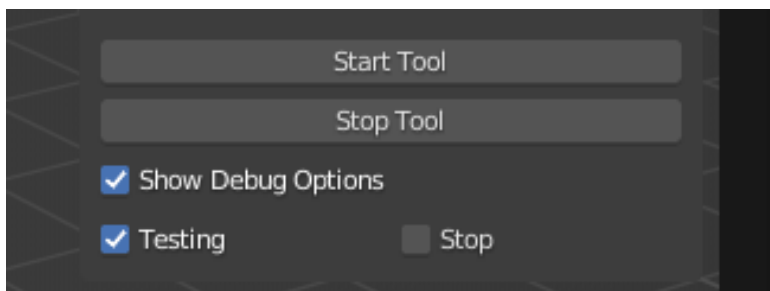
You can only create a maximum of 3 **Brush Steps** and practically, these are the only ones you will be working with. Once you press one of their **Trigger Shortcut Keys** the tool will gradually change the values of the Blender brush to those you have defined, and once you have released the trigger key it will gradually change to the Default one.

The shortcut keys are inclusive, so, even if you have the Shift key pressed, the brush will change once you press the Control key.

Once you have all your values defined you need to press the "**Start Tool**" button to start the tool.



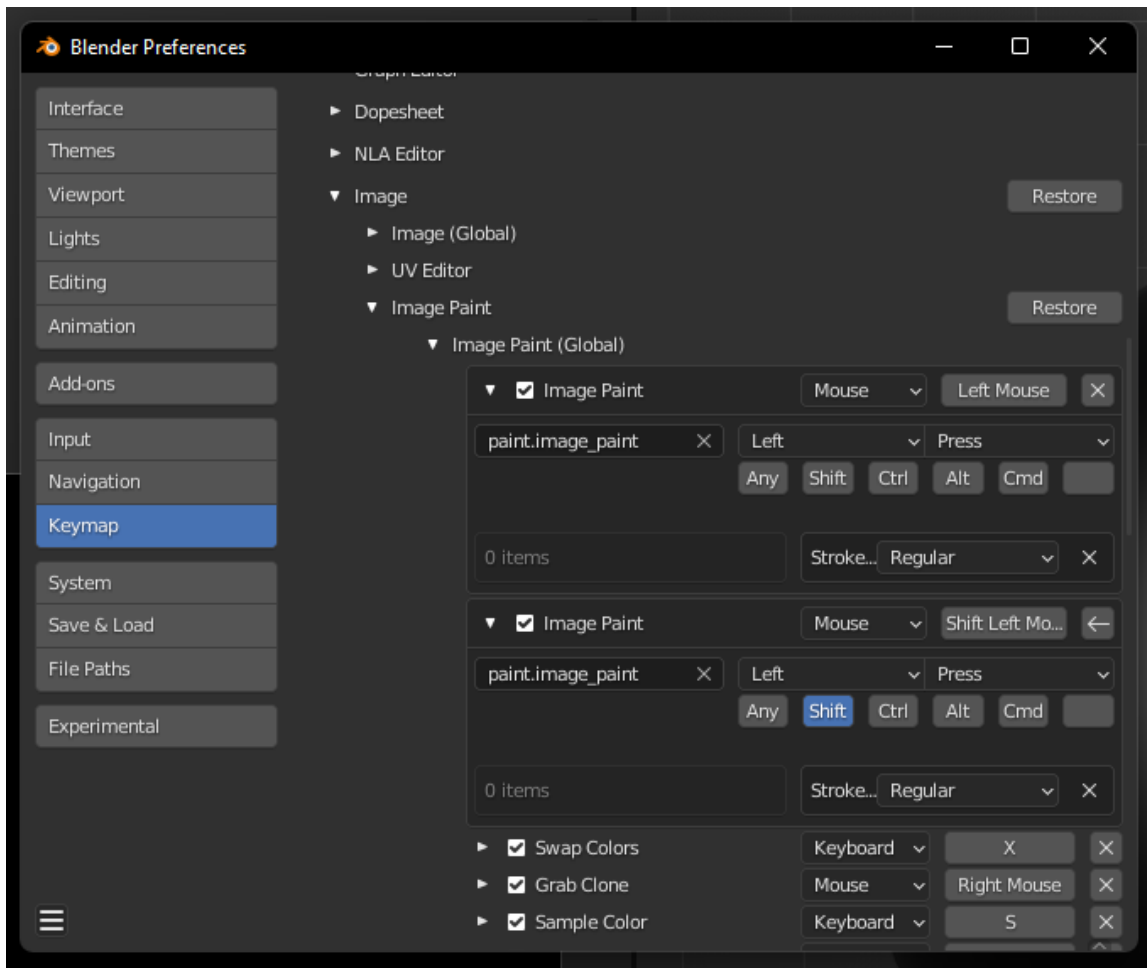
You can see if the tool is active in the "**Show Debug Options**" section, under the "**Testing**" check mark.



FAQ

I can't paint when I have another key pressed!

By default, Blender binds the paint action to the left mouse button and **only** the left mouse button, not like left mouse + Any button. You can avoid this if you first paint and then press the **Trigger Shortcut Keys** or if you add a new rule to your keymap.



The Control key does not work!

To avoid problems with the **Control Z** function, the Control shortcut will only work when the mouse is pressed.

Can I add my own shortcuts?

Short Answer:

No :(

Long (and technical) answer:

In order to create a gradual transition between Brush Steps I need to execute a method constantly and not only when a command is executed, for situations like these Blender provides an option called "Modal Operator", basically a method that executes every time an event is created.

You can create your own events, even better you can tell Blender to create specific events every "x" seconds. You can even listen to the events created by Blender itself, pressing a key is one event, pressing the mouse is another, etc.

Events created by the keyboard keys are **continuous** (they continue to run as long as you keep the key pressed) and **inclusive** (it doesn't matter if you have a key pressed, once you press another key it will overwrite the event value). These properties are extremely useful for defining shortcuts, however everything changes with the mouse. Mouse events are **singular** and **exclusive by design**. So, once you press the left mouse button you cannot detect if the mouse is still pressed nor can you detect any new keys being pressed until you take your finger off the mouse.

This breaks the whole design of the tool, you need to have the left mouse button pressed in order to draw and as long as you have it pressed you cannot hear any new keys.

My best solution was to **use the command keys as triggers**, since they are part of the events themselves, they are always heard.

One solution I thought for this was to add custom keymaps, however keep in mind that this tool is not listening for a key combination to execute an action, it is listening for **a key combination and the left mouse button** at the same time, an option that I believe Blender does not support.

Another possible solution to this would be to silence all events defined by the left mouse button and then redefine them within the tool itself, which is beyond my knowledge.