

## 7.1.31 Editors - 3D Viewport - Header - Grease Pencil - Edit mode - Stroke menu

### Table of content

Edit Mode - Stroke Menu.....	2
Subdivide.....	2
Last Operator Subdivide.....	3
Number of Cuts.....	3
Smooth.....	3
Repeat.....	3
Selected Points.....	3
Position.....	3
Thickness.....	3
Strength.....	3
UV.....	3
Simplify.....	3
Fixed.....	3
Last Operator Simplify Fixed Stroke.....	3
Steps.....	3
Adaptive.....	3
Last Operator Simplify Stroke.....	4
Factor.....	4
Sample.....	4
Last Operator Sample Stroke.....	4
Factor.....	4
Trim.....	4
Join.....	4
Join and copy.....	4
Last Operator Join Strokes.....	4
Type.....	4
Leave Gaps.....	4
Move to Layer.....	5
New Layer.....	5
Last Operator Move Strokes to Layer.....	5
Grease Pencil Layer.....	5
Assign Material.....	5
Last Operator Change Stroke Color.....	6
Material.....	6
Set as active material.....	6
Arrange.....	6
Bring Forward.....	6
Send Backward.....	6
Bring to Front.....	6
Send to Back.....	6
Last Operator Arrange Stroke.....	6
Direction.....	6
Close.....	6
Toggle Cyclic.....	6
Last Operator Set Cyclical State.....	7

Type.....	7
Close all.....	7
Open all.....	7
Toggle.....	7
Create geometry.....	7
Toggle Caps.....	7
Default.....	7
Both.....	7
Start.....	7
End.....	7
Last Operator Set Caps Mode.....	7
Type.....	7
Switch Direction.....	8
Set Start Point.....	8
Re project Strokes.....	8
Last Operator Re project Strokes.....	8
Projection Type.....	8
Normalize Thickness.....	8
Normalize Opacity.....	8
Last operator Normalize Stroke.....	8
Mode.....	8
Value.....	8
Reset Fill Transform.....	9
Outline.....	9
Last operator Convert Stroke to Outline.....	9
View.....	9
Material Mode.....	9
Thickness.....	9
Keep Shape.....	9
Subdivisions.....	10
Sample Length.....	10

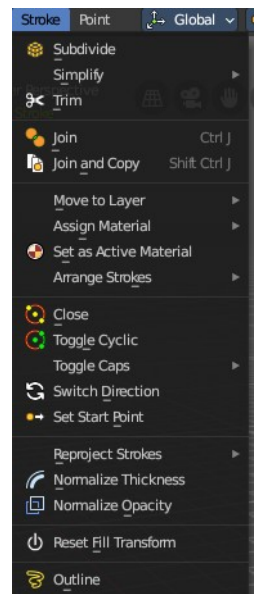
## Edit Mode - Stroke Menu

In Edit Mode you will also see a add menu for some object types. The number of objects that you can add is limited to the same object type that you are in edit mode with. You can just add mesh geometry to a mesh geometry. And just curve geometry to curve geometry.

The added objects in edit mode becomes part of the current object geometry.

### Subdivide

Subdivides the selected grease pencil geometry.



## Last Operator Subdivide

### **Number of Cuts**

Number of subdivision cuts.

### **Smooth**

Smoothen the stroke, not just the new added vertices

### **Repeat**

The number of times to repeat the procedure.

### **Selected Points**

Limits the effect to only the selected points within the stroke.

### **Position**

The operator affects the points location.

### **Thickness**

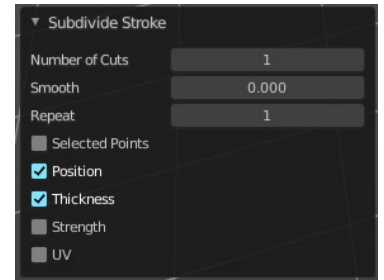
The operator affect the points thickness.

### **Strength**

The operator affect the points strength (alpha).

### **UV**

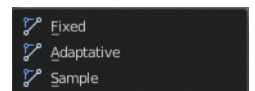
The operator affect the UV rotation on the points.



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## Simplify

Simplifies the stroke.



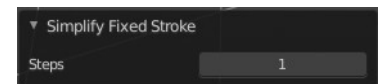
### **Fixed**

Deletes every second point in the stroke, except the start and end points.

### **Last Operator Simplify Fixed Stroke**

#### **Steps**

How much levels of simplifying.



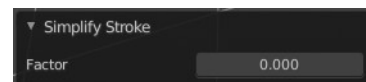
### **Adaptive**

This method uses an algorithm called RDP algorithm (Ramer-Douglas-Peucker algorithm) for points deletion. The algorithm tries to keep the shape with the remaining points.

## ***Last Operator Simplify Stroke***

### **Factor**

How strong the simplification should be performed.



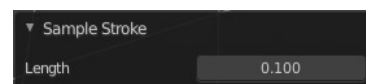
### **Sample**

Samples points along the shape of the stroke, and increases the length of the edges.

## ***Last Operator Sample Stroke***

### **Factor**

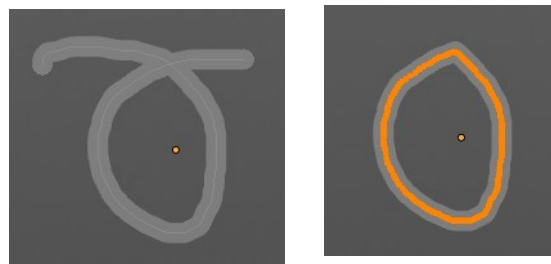
How long the edges between the points should be.



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## **Trim**

Trims down selected stroke geometry to first loop or intersection.



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## **Join**

Join selected strokes by connecting points.

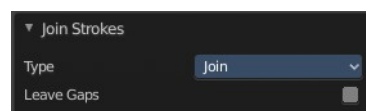
## **Join and copy**

Join selected strokes by connecting points in a new stroke.

## **Last Operator Join Strokes**

### **Type**

Join or Join and Copy.



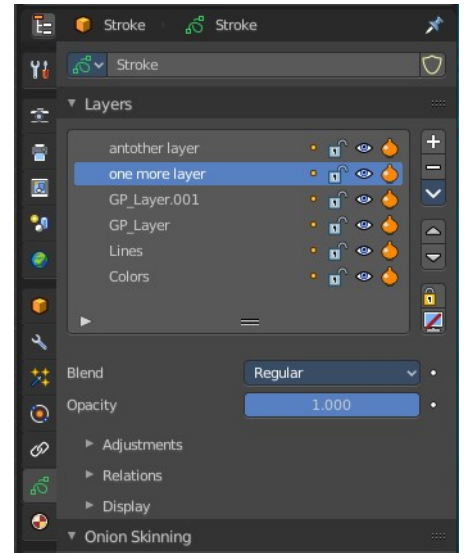
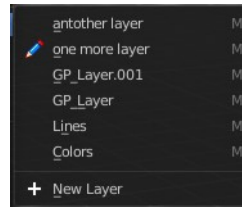
### ***Leave Gaps***

Don't connect the strokes by geometry.

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## Move to Layer

Move the current selected stroke to another grease pencil layer. It lists the current layers.



## New Layer

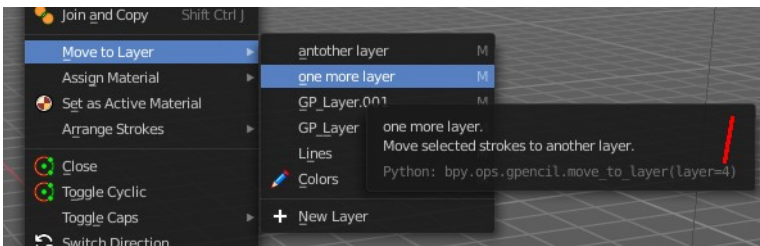
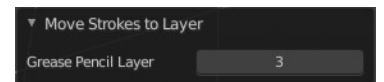
New Layer button adds a new grease pencil layer.

## Last Operator Move Strokes to Layer

### Grease Pencil Layer

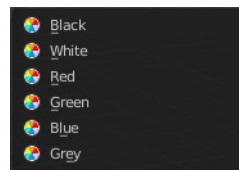
Internal the layers are enumerated. So here you move by number.

The number of a layer can be found out in the tool tip, in the Python part of it.

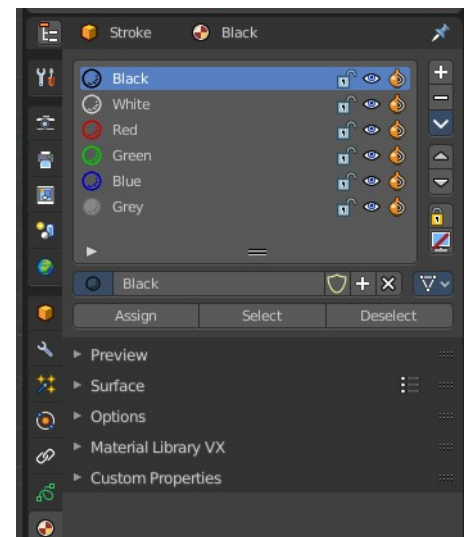


## Assign Material

Assign a new material to the current selected stroke geometry.



The materials can be found and edited in the Properties editor. Here you can also create new materials.

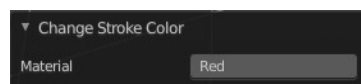


## ***Last Operator Change Stroke Color***

### **Material**

The materials are defined by its name. So when you want to use another material, then change the name here.

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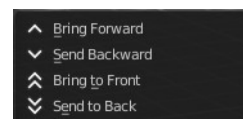
## **Set as active material**

Sets the current selected material as the active material.

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## **Arrange**

Changes the drawing order of the strokes in the 2D layer.



### **Bring Forward**

Moves the selected points/strokes upper the next one in the drawing order.

### **Send Backward**

Moves the selected points/strokes below the previous one in the drawing order.

### **Bring to Front**

Moves to the top the selected points/strokes.

### **Send to Back**

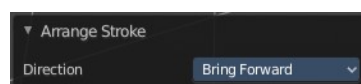
Moves to the bottom the selected points/strokes.

## ***Last Operator Arrange Stroke***

### **Direction**

Choose the method again.

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## **Close**

Closes the current stroke by connecting the first vertice with the last vertice by a stroke. See also Toggle Cyclic.

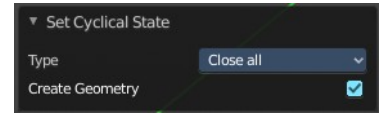
## **Toggle Cyclic**

When the curve is open, then it Closes the current stroke by connecting the first vertice with the last vertice by a stroke. When the curve is closed, then it removes the connection between first and last vertice, and makes the curve open.

## Last Operator Set Cyclical State

### Type

Choose the method again.



### Close all

Close all open selected strokes.

### Open all

Open all closed selected strokes.

### Toggle

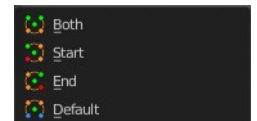
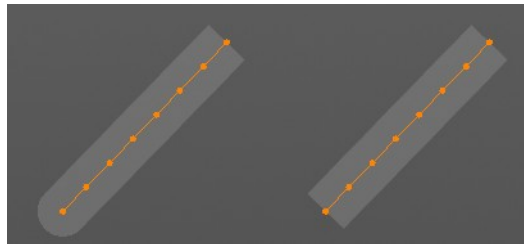
Close or Open selected strokes as required.

### Create geometry

When enabled, points are added for closing the strokes like when using the Close tool. If disabled, the stroke is closed with just one edge.

## Toggle Caps

Toggles if the start and endpoints of the strokes are rounded or flat.



### Default

Sets stroke start and end points to rounded (default).

### Both

Toggle stroke start and end points caps to flat or rounded.

### Start

Toggle stroke start point cap to flat or rounded.

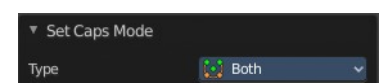
### End

Toggle stroke end point cap to flat or rounded.

## Last Operator Set Caps Mode

### Type

Choose the method again.



## Switch Direction

Switches the direction of the stroke geometry.

## Set Start Point

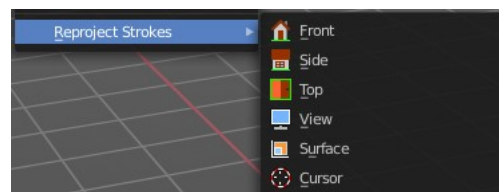
Just for cyclic strokes. Sets the start point of the cyclic stroke.

How to: select the vertice that should be the new start point. Then perform tool.

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## Re project Strokes

Re projects the selected stroke points in the selected view method.

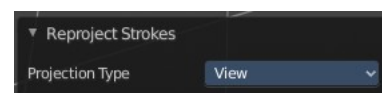


## Last Operator Re project Strokes

### *Projection Type*

Choose the method again.

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## Normalize Thickness

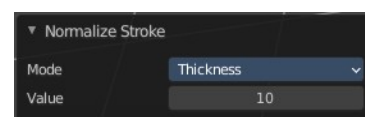
Adjust the thickness of the stroke.

## Normalize Opacity

Adjust the opacity of the stroke.

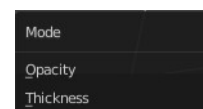
## Last operator Normalize Stroke

This last operator works for both tools, Normalize Thickness and Normalize Opacity.



### *Mode*

Adjust thickness or opacity.



### *Value*

The value to adjust the opacity or thickness.

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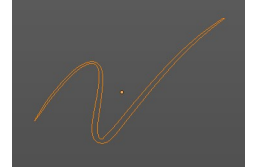


## Reset Fill Transform

Reset any UV transformation back to default values.

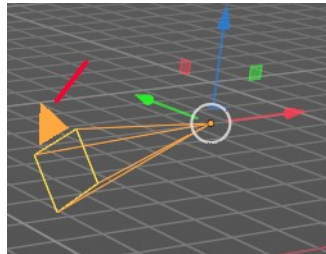
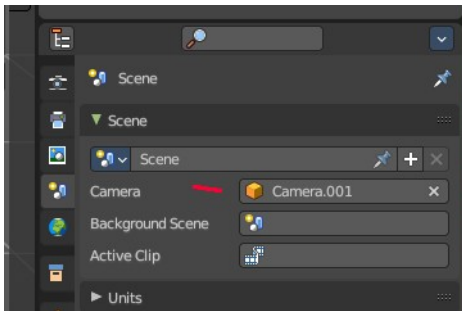
## Outline

Converts the outline of the stroke to a new stroke and removes the original stroke.

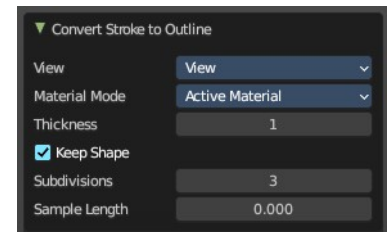


This tool requires to have a **ACTIVE** camera in the scene, since the outline is created from this active camera. And the outline is created from exact this view of the camera. So better switch to camera view to check if the view fits.

The active camera has the active orange triangle above the widget. You can also see the active camera in the Scene properties.

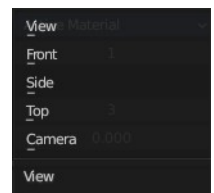


## Last operator Convert Stroke to Outline



### **View**

From which view to calculate the outline.



### **Material Mode**

What material to assign to the new stroke.



### **Thickness**

The thickness of the new stroke

### **Keep Shape**

Try to keep global shape when the stroke thickness changes.

### ***Subdivisions***

How many subdivisions the new stroke has

### ***Sample Length***

Sample length of the stroke.