

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

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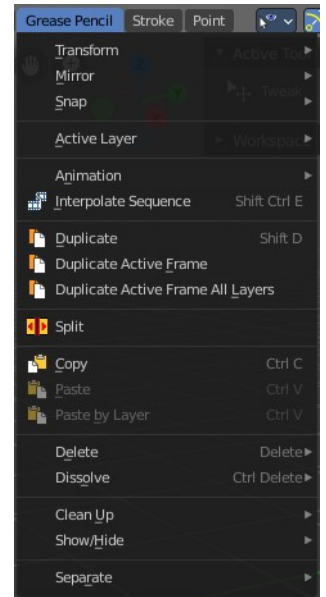
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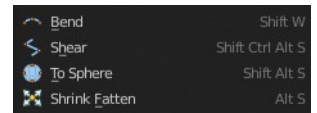
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## Edit Mode - Grease Pencil Menu



## Transform



### Bend

Bends the selection.

### Shear

Shear shears the selection.

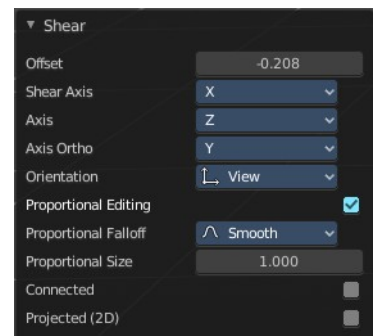
### Last Operator Shear

#### Offset

Adjust an offset.

#### Shear Axis

The shear tool works along a imaginary 2d plane. The shear axis controls if the items are sheared along the x or the y axes of this plane. This is the plane along which the transformation happens. You can shear along the x or the y axis of this plane.



To make things even more complicated, the orientation of this imaginary plane is defined by the Axis and Axis

Ortho items below.

## Axis

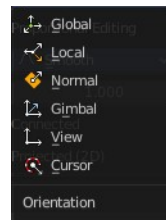
Defines one axis of the imaginary shear axis plane.

## Axis Ortho

Defines the other axis of the imaginary shear axis plane.

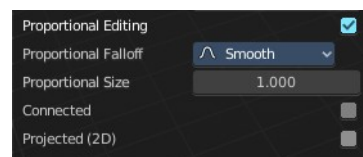
## Orientation

Choose the orientation for the shear action.



## Proportional editing

Enables proportional editing. Activating proportional editing reveals further settings.



## Proportional Falloff

Adjust the falloff methods.

## Proportional Size

See and adjust the falloff radius.

## Connected

The proportional falloff gets calculated for connected parts only.

## Projected(2D)

The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.

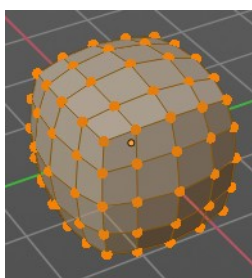
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## To Sphere

Shapes a selection of objects into the shape of a sphere. The calculation happens with the object origins.

## Usage

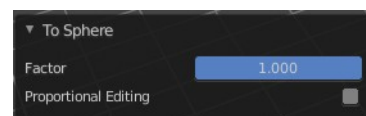
Select the vertices, activate the tool, then drag the mouse in the 3D viewport. In the header you will read the current factor then. Which tells you how close you are towards the sphere shape.



## Last Operator To Sphere Panel

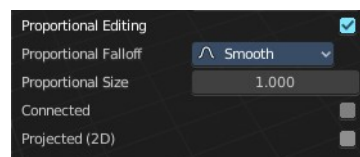
### **Factor**

The factor to transform the selection into a shape form.



### **Proportional editing**

Enables proportional editing. Activating proportional editing reveals further settings.



### **Proportional Falloff**

Adjust the falloff methods.

### **Proportional Size**

See and adjust the falloff radius.

### **Connected**

The proportional falloff gets calculated for connected parts only.

### **Projected(2D)**

The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.

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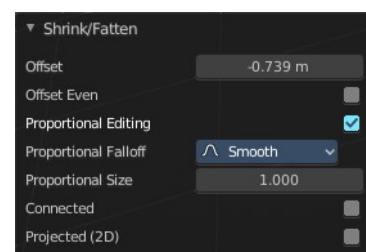
## Shrink/Fatten

Shrink/Fatten scales the selected geometry along its normals. Transform orientation and Pivot point gets ignored.

A positive value pushes the vertices outwards. A negative value pushes the vertices inwards.

### Last Operator Shrink/Fatten

The Last Operator Shrink/Fatten panel gives you tools to adjust the Shrink/Fatten operation. Here you have numeric input for the strength and a few more options.



### **Offset**

Offset is the strength of the offset for Shrink/Fatten.

### **Offset Even**

Offset Even scales the selection to give more thickness in even areas.

### **Proportional editing**

Enables proportional editing. Activating proportional editing reveals further settings.

## Proportional Falloff

Adjust the falloff methods.

## Proportional Size

See and adjust the falloff radius.

## Connected

The proportional falloff gets calculated for connected parts only.

## Projected(2D)

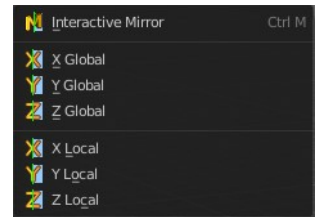
The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.

# Mirror

Mirror mirrors the selected geometry along the defined axis.

## Interactive Mirror

Mirror by hotkeys. You activate the tool, type in x for x global for example, or x x for x local. And the selection gets mirrored.

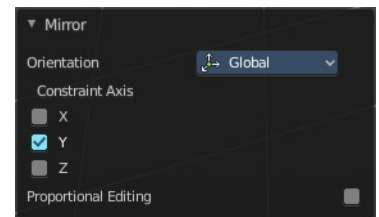


## X Global, Y Global etc.

Mirrors the selection around the chosen axis.

## Last Operator Mirror

The Last Operator Mirror panel gives you tools to adjust the mirror action.

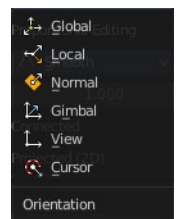


## Orientation

Orientation is a drop-down box. Choose the type of orientation for the mirroring action.

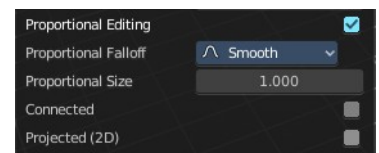
## Constraint Axis

Constraint Axis gives you again the possibility to define the mirror axis. You can choose more than one axis here.



## Proportional editing

Enables proportional editing. Activating proportional editing reveals further settings.





## Proportional Falloff

Adjust the falloff methods.

## Proportional Size

See and adjust the falloff radius.

## Connected

The proportional falloff gets calculated for connected parts only.

## Projected(2D)

The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.

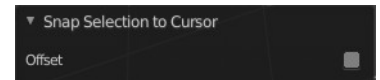
# Snap

Choose several methods to snap one element to another. The menu items should be self explaining.



## Last Operator Snap

Some snap operations shows a last operation panel, some not.



## Offset

If the selection should snap as a whole, or if each individual element of the selection should snap.

# Animation

## Insert Blank Key frame ( Active Layer )

Inserts a key frame into the active layer.

## Insert Blank Key frame ( All Layers )

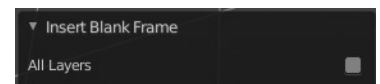
Inserts a key frame into all layers.

## Last Operator Insert Blank Frame

Some snap operations shows a last operation panel, some not.

## All Layers

Insert into active layer or into all layers.



## Duplicate Active Key frame ( Active Layer )

Duplicates the active key frame in the active layer.

## Duplicate Active Key frame ( All Layers )

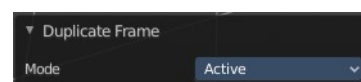
Duplicates the active key frame in all layers.

## Last Operator Insert Blank Frame

Some snap operations shows a last operation panel, some not.

### Mode

Duplicate the active key frame in the active layer or in all layers.



## Delete Active Key frame ( Active Layer )

Deletes the active key frame in the active layer.

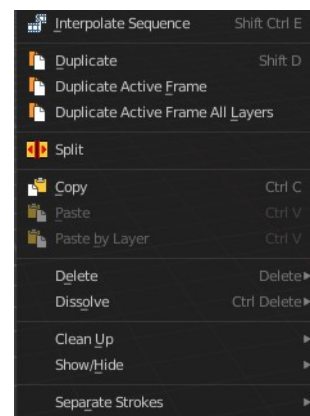
## Delete Active Key frame ( All Layers )

Deletes the active key frame in all layers

# Single Operators

## Interpolate Sequence

Interpolate strokes between the previous and next keyframe by adding multiple keyframes. When you are on a frame between two keyframes and click the sequence button, then a breakdown keyframe will be added on every frame between the previous and next keyframe.



## Duplicate

Duplicates the current selection.

When you duplicate a selection, then it sticks to the mouse until you left click. And moves around. A right click repositions the duplicated geometry at its original location.

## Last Operator Duplicate

### Mode

Not to find out. No tool tip, no entry in the Blender manual. Good Job Blender Developers.

### Move X, Y, Z

Adjust the position.

### Orientation

Orientation is a drop-down box. Choose the type of orientation for the mirroring action.

### Constraint Axis

Constraint Axis gives you again the possibility to define the mirror axis. You can choose more than one axis here.

### Proportional editing

Enables proportional editing. Activating proportional editing reveals further settings.

### Proportional Falloff

Adjust the falloff methods.

### Proportional Size

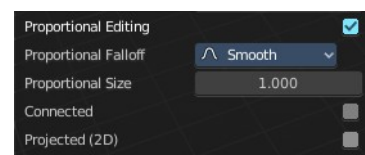
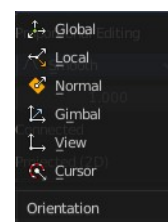
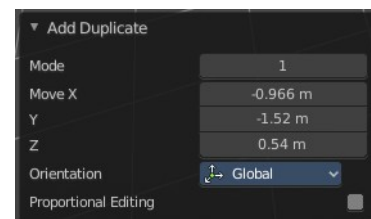
See and adjust the falloff radius.

### Connected

The proportional falloff gets calculated for connected parts only.

### Projected(2D)

The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.



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## Duplicate Active Frame

Duplicates the active frame in the active layer.

## Duplicate Active Frame All Layers

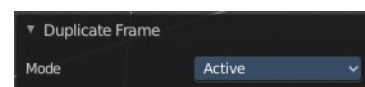
Duplicates the active frame in all layers.

## Last Operator Duplicate Frame

### Mode

Choose between Duplicate Active Frame and Duplicate Active Frame All Layers.

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## Split

Splits the selection.

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## Copy

Copies the selection.

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## Paste

Pastes a copied selection to active layer. You can have more than one layer.

## Paste by Layer

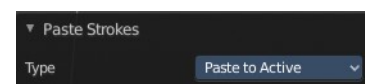
Pastes a copied selection to same, original layer. You can have more than one layer.

## Last operator Paste Strokes

### Type

Choose between the paste methods again.

---



## Delete

### Points

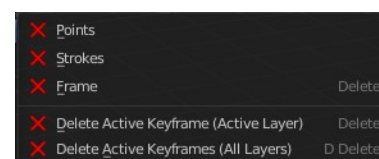
Delete selected stroke points.

### Strokes

Delete the stroke where the current selection belongs to.

### Frame

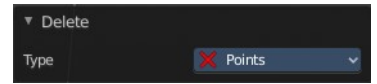
Delete the grease pencil frame where the current selection belongs to.



## Last Operator Delete

### Type

Choose what you want to delete.



## Delete Active Key frame(Active Layer)

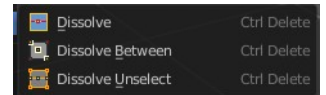
Deletes the active key frame in the current active layer.

## Delete Active Key frame(All Layers)

Deletes the active key frame in all layers.

## Dissolve

Dissolve is a union operation. Two edges becomes one edge by removing the vertice in between.



### Dissolve

Dissolves the selection.

### Dissolve Between

Dissolves the vertices between the selected vertices.

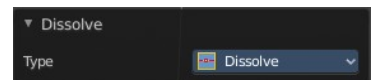
### Dissolve Unselect

Dissolves the vertices that are not selected.

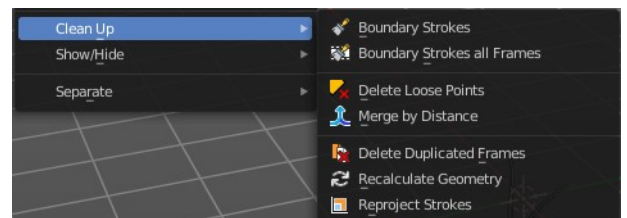
## Last Operator Dissolve

### Type

Choose how you want to dissolve.



## Cleanup



## Boundary Strokes

Removes boundary "No Fill" strokes in the current active frame.

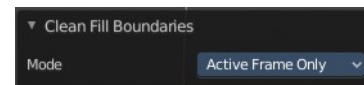
## Boundary Strokes all Frames

Removes boundary "No Fill" strokes in the all frames.

### *Last Operator Clean Fill Boundaries*

#### Mode

Current active frame or all frames.



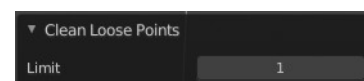
## Delete Loose Points

Deletes not connected stroke geometry that is made of loose points.

### *Last Operator Clean Loose Points*

#### Limit

The number of vertices below which a stroke gets counted as a loose point.



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## Merge by Distance

Merges vertices that are close to each other.

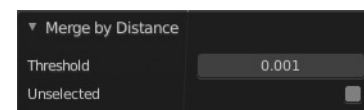
### *Last Operator Clean Loose Points*

#### Threshold

The distance.

#### Unselected

Merge also unselected geometry.



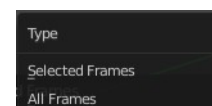
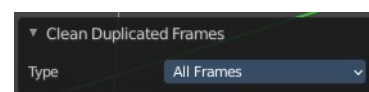
## Delete Duplicated Frames

Deletes all duplicated frames.

### *Last Operator Clean Duplicated Frames*

#### Type

Delete just in the selected frames or in all frames.



## Recalculate Geometry

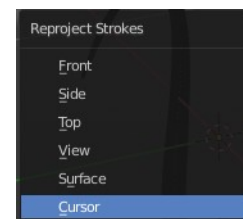
Update all internal geometry data.

## Re project Strokes

Re project the selected strokes onto a new plane from the current viewport. So that all strokes are on one plane.

### Re project Strokes menu

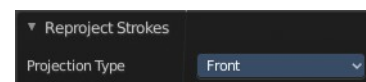
Using this tool opens a popup menu. Choose the projection type method.



### Last Operator Re project Strokes

#### Projection Type

A popup menu. Choose the projection type method.



---

## Show / Hide

### Show Hidden Layer

Makes all layers in the scene visible again.



### Hide Selected Layer

Hides the selected layer.

### Last Operator Hide Layers

#### Unselected

Hides the not selected layers.



### Hide Unselected

Hides the not selected layers. The selected layers stays visible.

### Toggle Opacity

Toggles the opacity of the stroke. With opaque stroke the vertices are hidden behind the stroke, and can't be seen.

---

## Separate

Separates the selection into a new grease pencil object.



### Selected Points

Separate the selected points with its edges.

## **Selected Strokes**

Separate the whole stroke of the current selection.

## **Active Layer**

Separate all the strokes at the current active layer.

## **Last Operator Separate Strokes**

### ***Mode***

#### **Active Layer**

Separate all the strokes at the current active layer.

#### **Selected Strokes**

Separate the whole stroke of the current selection.

#### **Selected Points**

Separate the selected points with its edges.

