



## 7.0.4 Editors - 3D Viewport - Mesh Object - Edit Mode - Face Context Menu

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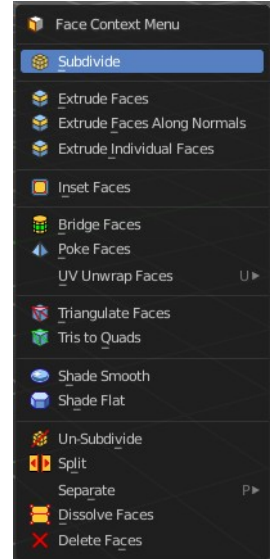
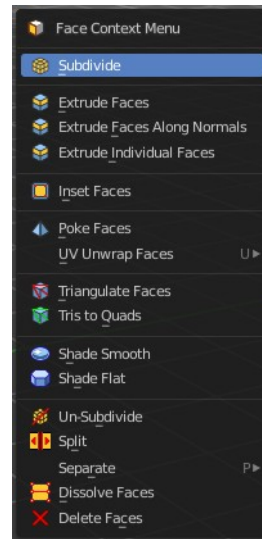
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# Face Context Menu

Call this menu with double right click in the 3D viewport. You need to be in Edit mode with a Mesh object. And in selection mode Edge.



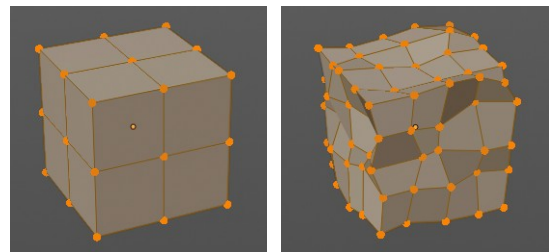
Select geometry to reveal all content.



## Subdivide

Subdivide divides the selected edges. It subdivides the involved faces too, and can create new vertices.

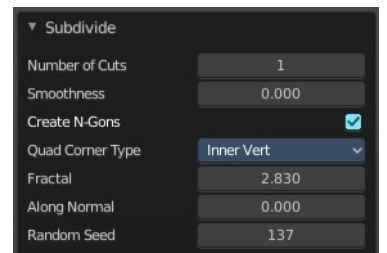
A more unknown functionality is that it can also randomize the result with the Fractal slider in the Last operator panel.



## Last Operator Subdivide

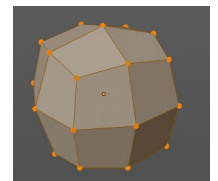
### Number of Cuts

The number of cuts defines the amount of subdivisions.



### Smoothness

This value defines how smooth the subdivision result is. From flat to bent.

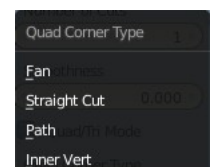


### Create N-Gons

Create N-Gons if required. Else subdividing N-Gons creates Tris.

### Quad Corner Type

Adjust the corner type.



## **Fractal**

Randomize the selected vertices.

## **Along Normal**

When randomized, this value defines how strong the subdivision follows the normals of the initial vertices.

## **Random Seed**

Randomizing value for fractal randomizing.

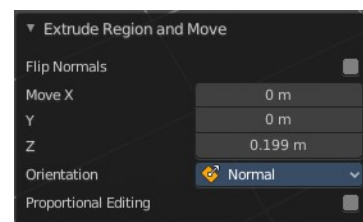
## **Extrude Faces**

Extrudes out the selected faces into the face direction by moving the mouse. When it's more than one face, then the middle will be used.

## **Last Operator Extrude Region and Move**

### **Flip Normals**

Flips the normals of the extruded faces.

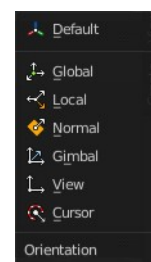


### **Move X, Y Z**

The position. Attention, the actual world orientation and rotation does not matter here. It always starts with a value of zero, and moves relative to this zero then. For the actual location values have a look in the sidebar in the transform panel.

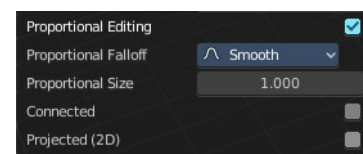
### **Orientation**

The widget can have different orientations. The menu items should be self explaining.



### **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***

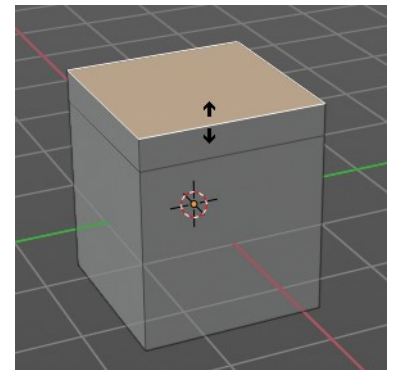
The proportional falloff gets calculated for connected parts only.

### ***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.

## **Extrude Along Normals**

Extrudes the selection along local normals.



Shrink/Fatten: 0.3453, (R or Alt) Even Thickness OFF

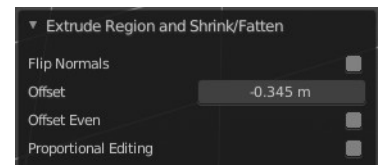
### **Header Value**

This tool works like a shrink fatten extrude. And so you will see a corresponding set of values in the header.

## **Last Operator Extrude Region and Shrink/Fatten**

### ***Flip Normals***

Flips the normals of the extruded faces.



### ***Offset***

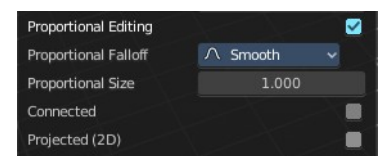
The current extrude amount.

### ***Offset Even***

Scales the offset to give more even thickness. Without this checked the farer away faces will have a bigger extrude amount.

### ***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.

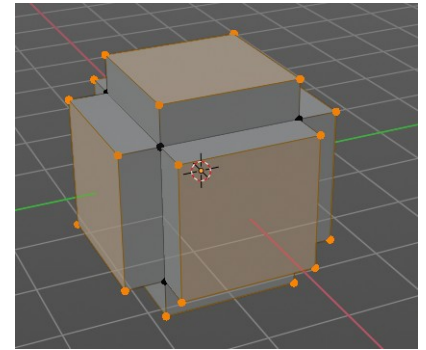
## **Projected(2D)**

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.

## **Extrude Individual**

Extrudes the selection along local normals of each individual face.

The method works the same in all Mesh select modes. Vertice, Edge and Face Mode.



Shrink/Fatten: 0.3453, (R or Alt) Even Thickness OFF

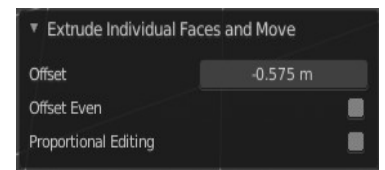
## **Header Value**

This tool works like a shrink fatten extrude. And so you will see a corresponding set of values in the header.

## **Last Operator Extrude *Individual Faces and Move***

### **Offset**

The current extrude amount.

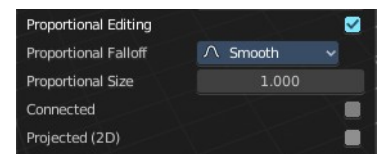


### **Offset Even**

Scales the offset to give more even thickness. Without this checked the farer away faces will have a bigger extrude amount.

### **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)***

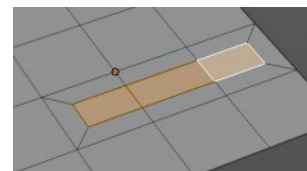
The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.

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## **Inset Faces**

Inset insets edges into the selected faces. Think of it as an extrude inwards the face.

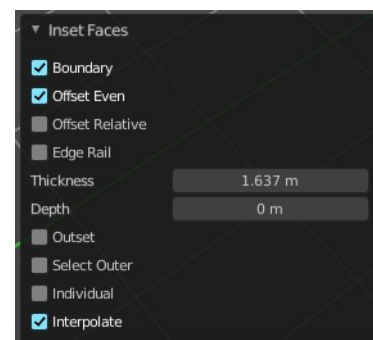
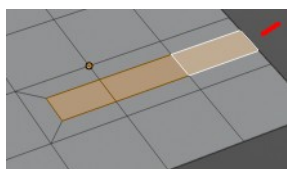
Activate the tool, drag the mouse. But carefully. The control is not the best. You better adjust the amount in the last operator.



## **Last Operator Inset Faces**

### ***Boundary***

With Boundary ticked you will get the connect edges in the corners. Without the edges ends straight.



### ***Offset Even***

Scales the offset to give more even thickness.

### ***Offset Relative***

Scales the offset by surrounding geometry.

### ***Edge Rail***

Inset the region along existing edges.

### ***Thickness***

Thickness adjusts the thickness of the inset geometry.

### ***Depth***

With depth you can bevel the inset geometry. It is then not longer co planar to the initial face.

### ***Outset***

With outset ticked the Inset will not extrude inwards but outwards.

## **Select Outer**

With Select Outer the outer ring will be selected after the Inset.

## **Individual**

Inset every face individually.

## **Interpolate**

Blend Face Data across the inset.

---

## **Bridge Faces**

The Bridge Faces tool bridges selected faces, and adds polygons between them. You need to have at least two faces selected.

This tool is basically the Bridge Edge Loops tool, just that it operates in Face mode.

Note that this tool just shows when you are in Face Select Mode.

## **Last Operator Bridge Edge loops**

### **Connect Loops**

Choose the method how to deal with bridging multiple loops.

### **Merge**

With merge ticked it will not create a bridge face, but merge the selected edges.

### **Merge Factor**

The merge factor determines at which distance between the selected edges the merge happens. 0.5 is the middle of the selected edges.

### **Twist**

The twist offset for closed loops.

### **Number of Cuts**

Adds cuts to the bridge face.

### **Interpolation**

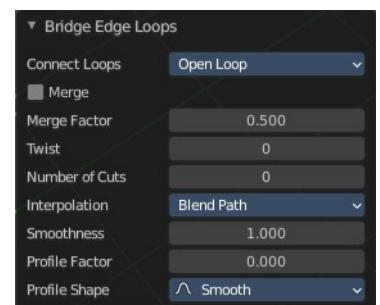
Choose the interpolation mode for the cuts.

### **Smoothness**

Adjust the smoothness for the cuts.

### **Profile Factor**

Adjust the profile factor for the cuts.



## ***Profile shape***

Adjust the profile shape for the cuts.

---

## **Poke Faces**

Splits the selected faces to create a triangulated geometry.

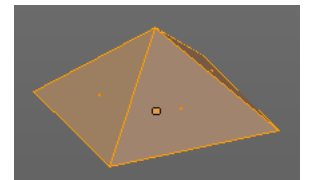
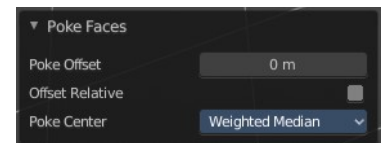
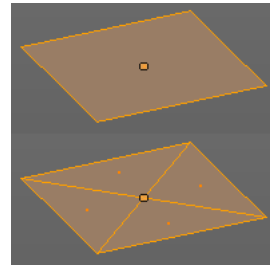
### **Last Operator Poke Faces**

#### ***Poke Offset***

Normally the center vertice of the poke operation is planar with the rest. Adjust an offset.

#### ***Offset Relative***

Scale the offset by surrounding geometry.



#### ***Poke Center***

Poke Center is a drop-down box choose what the center of the poke operation should be. You can choose between weighted mean, mean and bounds.



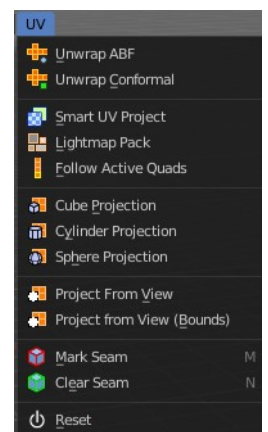
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## **UV Unwrap Faces submenu**

The UV menu from the header.

Here you find the UV mapping methods and some further functionality. You use it best in the U Editing layout. There you can see the result in the UV Editor then.

The UV menu is just available for Mesh objects



## **Unwrap ABF**

Unwrap ABF unwraps the selected geometry with the method Angle based. ABF stands for Angle Based Flattening. ABF can give a bit better result than LSCM when unwrapping organic shapes.

## Unwrap Conformal

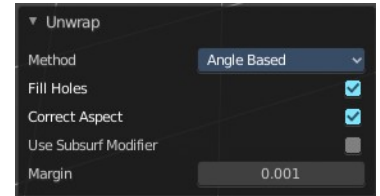
Unwrap Conformal unwraps the selected geometry with the method LSCM, which is the short for Least Square Conformal Mapping. LSCM can give a bit better results than ABF with geometric shapes.

## Last Operator Unwrap

Unwrap ABF and Unwrap LSCM shares the same Last Operator.

### **Method**

Method is a drop down box where you can choose between Unwrap method Angle Based and Conformal.



### **Fill Holes**

Fill holes in the mesh before unwrapping.

### **Correct Aspect**

Take the Image Aspect Ratio into account.

### **Use Subsurf Modifier**

Unwraps an existing Subsurf Modifier. You need to add a Subsurf Modifier first.

### **Margin**

The distance between the single UV patches.

## Smart UV Project

Smart UV Project projects the UV mapping from different angles.

### **Smart UV Project Settings dialogue**

#### **Angle Limit**

The Angle Limit defines after which angle the mapping happens from the next side. With an angle of 66 you have around six sides to map from. The calculation is  $360/66$ .

#### **Island Margin**

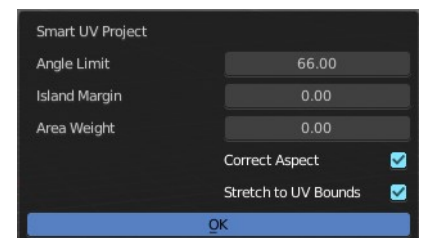
Island Margin defines the distance between the UV patches.

#### **Area Weight**

Weight Projection Vector by faces with larger areas.

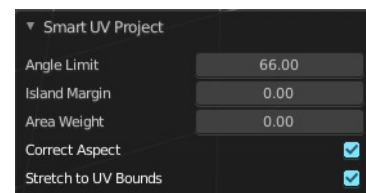
#### **Correct Aspect**

Take the Image Aspect Ratio into account.



## Last Operator Smart UV Project

The Last Operator for Smart UV Project contains the same settings than the Smart UV Project Settings dialogue.



---

## Light map Pack

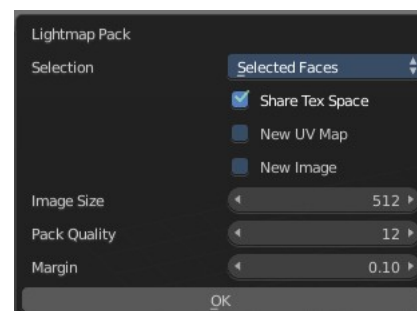
Light map Pack maps each face individually, and puts the result into the UV space. Without margin.

Light map Pack has no Last Operator.

### Settings

#### Selection

Selection is a drop-down box where you can choose what will be packed.



#### Share Tex Space

Map all objects into one light map.

#### New UV Map

Create a new UV map for every new mesh.

#### New Image

Assign new Image to every new mesh.

#### Image Size

The size for new images.

#### Pack Quality

The pack quality.

#### Margin

The distance between the single UV patches.

---

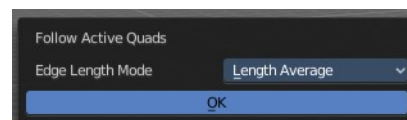
## Follow Active Quads

Follow Active quads maps UV coordinates starting from an active face, and maps all adjacent faces in quad shape then. This way you can for example unwrap a pipe or a road. You first need to have a face selected. Then select everything. And then click at Follow Active Quads.

## Settings

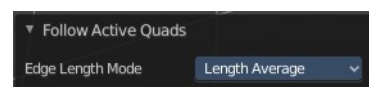
### Edge Length Mode

Edge Length Mode is a drop-down box where you can choose the Length method.



### Last Operator Follow Active Quads

The Last Operator contains the same settings than the Settings dialogue.



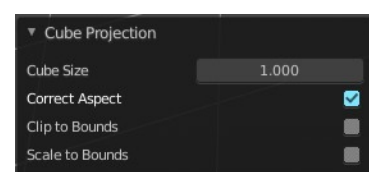
## Cube Projection

Cube Projection maps the mesh from six sides, means cubic.

### Last Operator Cube Projection

#### Cube Size

Cube Size defines the size of the UV mesh in the UV space.



#### Correct Aspect

Take Image Aspect ratio into account.

#### Clip to Bounds

Clip UV Coordinates to bounds after unwrapping.

#### Scale to Bounds

Scale UV Coordinates to bounds after unwrapping.

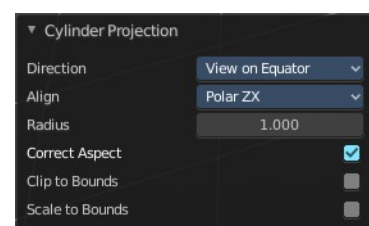
## Cylinder Projection

Cylinder Projection tries to map the geometry cylindric.

### Last Operator Cylinder Projection

#### Direction

Direction is a drop-down box where you can choose in which direction the cylindric projection will be mapped.



#### Align

Align is a drop-down box where you can choose the Align method.

#### Radius

Radius defines the Polar size of the UV mesh in the UV space.

#### Correct Aspect

Take Image Aspect ratio into account.

## Clip to Bounds

Clip UV Coordinates to bounds after unwrapping.

## Scale to Bounds

Scale UV Coordinates to bounds after unwrapping.

---

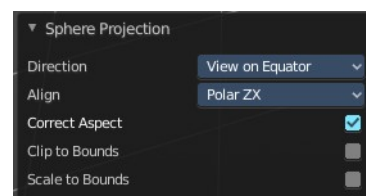
## Sphere Projection

Sphere Projection tries to map the geometry spherical.

### *Last Operator Sphere Projection*

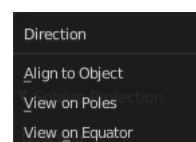
#### Direction

Direction is a drop-down box where you can choose in which direction the spherical projection will be mapped.



#### Align

Align is a drop-down box where you can choose the Align method.



#### Correct Aspect

Take Image Aspect ratio into account.

#### Clip to Bounds

Clip UV Coordinates to bounds after unwrapping.



#### Scale to Bounds

Scale UV Coordinates to bounds after unwrapping.

---

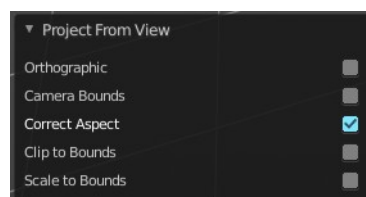
## Project from View

Project from View projects the UV from the current 3D view.

### *Last Operator Project from View*

#### Orthographic

User orthographic projection.



#### Camera Bounds

Map UV's to the camera region taking resolution and aspect into account.

#### Correct Aspect

Take Image Aspect ratio into account.

#### Clip to Bounds

Clip UV Coordinates to bounds after unwrapping.

## Scale to Bounds

Scale UV Coordinates to bounds after unwrapping.

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## Project from View (Bounds)

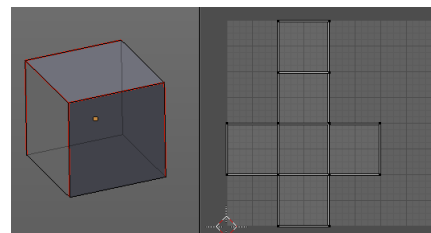
Project from View projects the UV from the current 3D view.

Same as Project from View, but with Scale to Bounds ticked in the Last operator. And so it scales to the bounds.

---

## Mark Seam

The unwrap algorithms Angle based and Conformal requires to have edges marked as seams. Think of it as a cutting pattern for a trouser for example. Such a trouser is also made of fabric patterns.



Same goes for the UV patches when you use Angle based or conformal unwrapping. You need to cut your mesh into parts and mark edges as seams, so that the algorithm knows where the seams are.

Mark seam marks the currently selected edge(s) as a seam. Seam edges will be displayed as red in the 3D viewport.

---

## Clear Seam

Clear seam removes the seam from the currently selected edge(s).

---

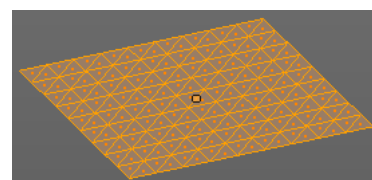
## Reset

Resets the UV Projection.

---

## Triangulate Faces

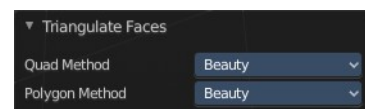
Triangulate Faces triangulates the faces of the selected geometry.



## Last Operator Triangulate Faces

### Quad Method

Choose how quads should be triangulated.



### Shortest diagonal

Splits the quads based on their distance between vertices.



### **Fixed Alternate**

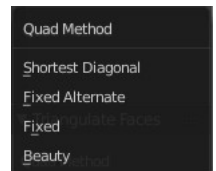
Splits the quads on the second and fourth vertice.

### **Fixed**

Splits the quads on the first and third vertice.

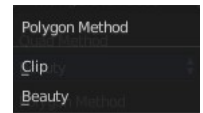
### **Beauty**

Tries to optimize the triangulation.



### ***Polygon Method***

Choose how N-Gons should be triangulated.



### **Clip**

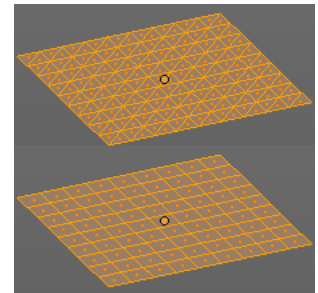
Splits the polygons with an ear clipping algorithm.

### **Beauty**

Tries to optimize the triangulation.

## **Tris to Quads**

Tris to quads tries to convert triangulated geometry back to a quad geometry by removing the edges inside of the quads.



### **Last Operator Tris to Quads**

#### ***Max Face Angle***

Adjust the threshold to adjacent triangles.

#### ***Max Shape Angle***

Adjust the shape angle limit.

#### ***Compare UV's***

Takes the UV patches for the calculation into account. Border geometry will not be calculated.

#### ***Compare VCols***

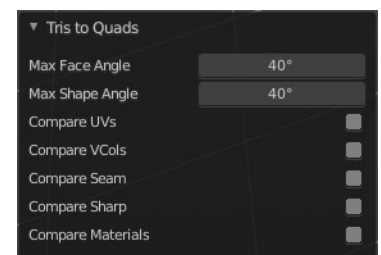
Takes the Vertex colors for the calculation into account. Border geometry will not be calculated.

#### ***Compare Seam***

Takes the Vertex colors for the calculation into account. Border geometry will not be calculated.

#### ***Compare Sharp***

Takes the as sharp marked edges for the calculation into account. Border geometry will not be calculated.



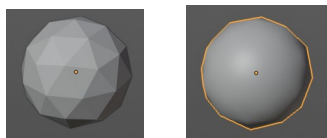
## Compare Materials

Takes the Materials colors for the calculation into account. Border geometry will not be calculated.

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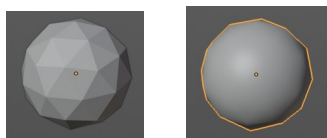
## Shade Smooth

Sets the shading for the object to smooth. Flat means that every face of the object shows facettet, with a sharp edge. Smooth means that the edges are not longer to see.



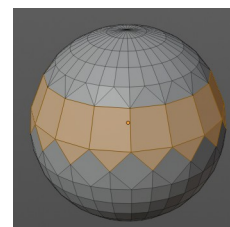
## Shade Flat

Sets the shading for the object to flat. Flat means that every face of the object shows facettet, with a sharp edge. Smooth means that the edges are not longer to see.



## Un-Subdivide

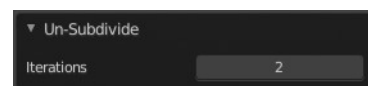
Decimates the geometry by trying to make one quad out of four quads. But can also end in Tris where this is not possible.



## Last Operator Un-Subdivide

### Iterations

Number of iterations. This means how deep the calculation should go. One level of SDS, two levels, three levels, etc. . Down to the point where you cannot decimate any geometry anymore.



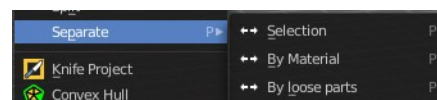
## Split

Splits the edges between the selected vertices. It creates two edges out of one. And splits the edge by that.

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## Separate submenu

Separate separates the selected geometry, and creates a new object. The geometry becomes uneditable, since it is now a new object. You will have to leave the Edit mode, select the new object, and re-enter Edit mode when you want to edit it.



## Selection

Selection separates the current selection.

## By Material

By Material separates all geometry that has the same material than the current selection.

## By Loose Parts

By Loose parts separates all geometry that is connected by edges to the current selection.

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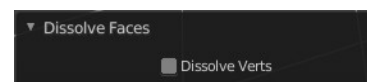
## Dissolve Faces

Dissolves the selected faces, which unions the involved faces to one.

## Last Operator Dissolve Vertices

### *Dissolve Verts*

Dissolve remaining vertices.



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## Delete Faces

Deletes the selected faces.