

7.1.10 Editors - 3D Viewport - Header - Mesh - Edit Mode - Vertex Menu

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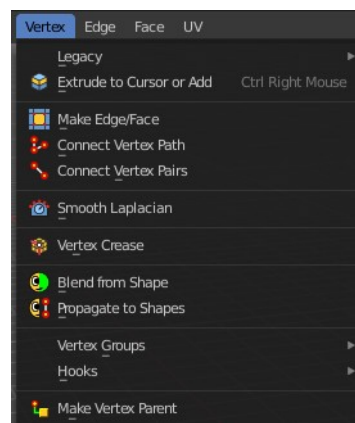
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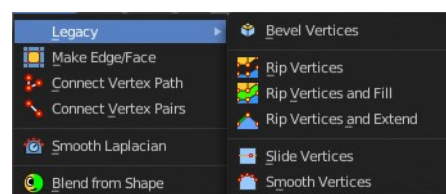
Edit Mode - Vertex Menu

The Vertex menu just exists for mesh objects. It provides you with tools that are designed to modify vertices.



Legacy

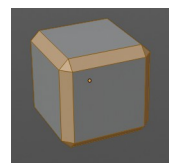
The legacy sub menu contains tools that exists in the tool shelf already. It's the old way to do things. Different to the tools in the tool shelf, these tools are usually modal. And performs once. You have to call them again in case you want to repeat the tool.



Bevel

The Bevel Tool adds a bevel to the selected geometry.

Usage: first select the geometry that you want to bevel. Then activate the tool. Don't wonder that the mouse movement does nothing until you move the mouse really really far away. That's by design. Best is to adjust the amount in the Last Operator Bevel panel.



Last Operator Bevel

Affect

What geometry to bevel. Vertices or Edges.

Width type

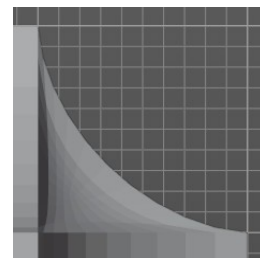
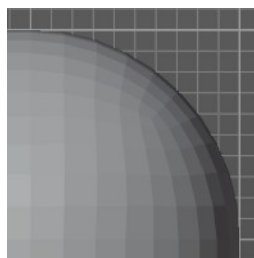
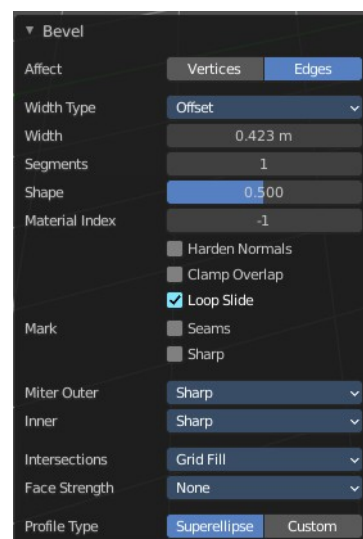
Which measure type to choose for the bevel action. Offset, Width, Depth or Percent.

Segments

How many segments gets created.

Shape

Controls the profile shape strength. A value close to 0 bends the roundness to inside. A value towards 1 bends the curve to outside. A value of 0.5 defines a radius around the center point of the bevel.



Material Index

The material for bevel faces. -1 means to use the material from the adjacent faces.

Harden Normals

Match normals of new faces to adjacent faces.

Clamp Overlap

Do not allow beveled geometry to overlap each other.

Loop Slide

Prefer slide along edge to even widths.

Mark Seams

Mark the edges of the new created geometry as seams.

Mark Sharp

Mark the edges of the new created geometry sharp.

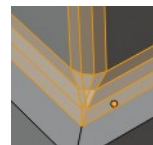
Outer Miter

How the outer miter is set. Miter is how the bevel rounding at a corner is done.



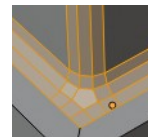
Sharp

Creates a sharp miter.



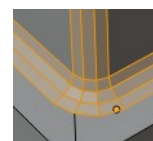
Patch

This replaces the outside vertex of a miter with 3 vertices. And uses a patch pattern there.



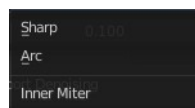
Arc

This replaces the vertex of a miter with 2 vertices, joined by an arc. A separate Spread parameter says how far to move the vertices away from their original position.



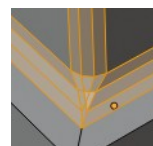
Inner Miter

How the inner miter is set. Miter is how the bevel rounding at a corner is done.



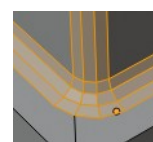
Sharp

Creates a sharp miter.



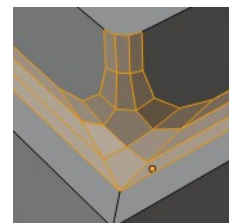
Arc

This replaces the vertex of a miter with 2 vertices, joined by an arc. A separate Spread parameter says how far to move the vertices away from their original position.



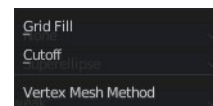
Spread

Belongs to inner miter method Arc. Adjust how strong the inner radius is bent.



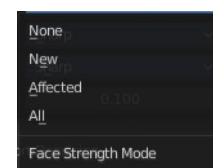
Intersections

The method to use to create meshes at intersections. Bevel can create self intersecting geometry.



Face Strength Mode

Set Face Strength on the faces involved in the bevel, according to the specified mode. This can be used in conjunction with a Weight Normals Modifier (with the Face Influence option checked).



None

Do not set face strength.

New

Set the face strength of new faces along edges to Medium, and the face strength of new faces at vertices to Weak.

Affected

In addition to those set for the New case, also set the faces adjacent to new faces to have strength Strong.

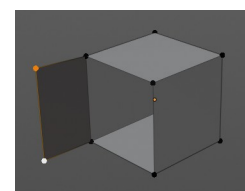
All

In addition to those set for the Affected option, also set all the rest of the faces of the model to have strength Strong.

Rip Vertices

Rip splits the edges between the selected vertices. It creates two edges out of one.

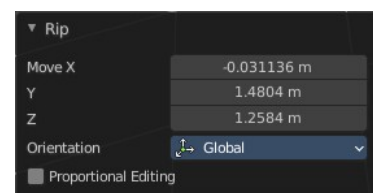
This tool works similar to the Edge Split tool. It also selects the outer edges so that you immediately move them. Right click will snap them back to the initial space.



Last Operator Rip

Move X , Y , Z

Adjust the position.

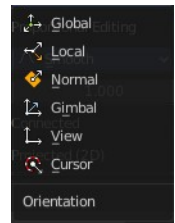


Constraint Axis

Limit the position relative to the source object.

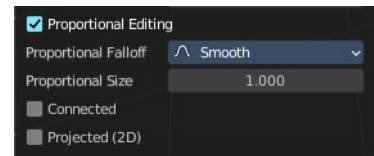
Orientation

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

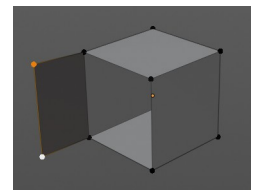
The proportional falloff gets calculated for connected parts only.

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.

Rip Vertices and Fill

Rip splits the edges between the selected vertices. It creates two edges out of one. But fills the gap.

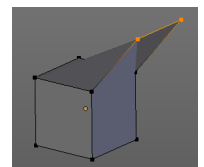


The last operator is the same than for the rip vertices tool above.

Rip Vertices and Extend

This tool is the same tool than the Rip Edge tool from the tool shelf.

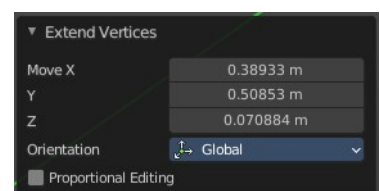
Rip Vertices and Extend extrudes out the selected vertices. When you do this operation at an edge then you will create N-Gons that way.



Last Operator Extend Vertices

Move X , Y , Z

Adjust the position.

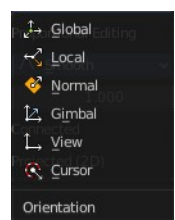


Constraint Axis

Limit the position relative to the source object.

Orientation

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



Proportional editing

Enables proportional editing. Activating proportional editing reveals further settings.

Proportional Falloff

Adjust the falloff methods.

Proportional Size

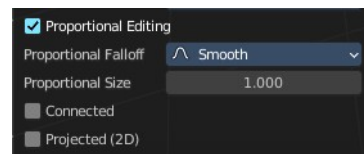
See and adjust the falloff radius.

Connected

The proportional falloff gets calculated for connected parts only.

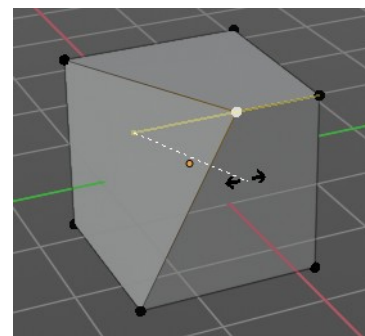
Projected(2D)

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.



Vertex Slide

Same tool than the Vertex Slide in the Tool Shelf. Vertex Slide slides the selected vertex along the edge that it is part of. This is for the corner vertice at a cube into three possible directions.



Last Operator Vertex Slide

Factor

Factor is a sliding box Adjust the slide strength numerically. The width of the face is the 0-1 range.

Even

Make the Edge loop match the shape of the adjacent edge loop.

Flipped

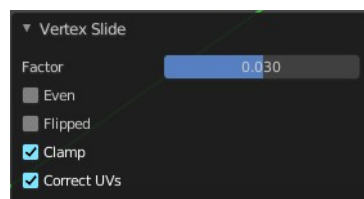
When Even Mode is active, flips between the two adjacent edge loops.

Clamp

Clamp within the edge extend.

Correct UV's

Correct UV's corrects the UV's while editing the geometry.



Smooth

Same tool than in the tool shelf. Smoothens the selected vertices.

Last Operator Smooth Vertices

Smoothing

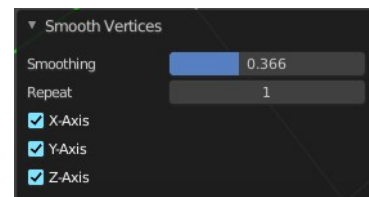
The smoothing factor.

Repeat

How often the smoothing should be applied.

X Axis, Y Axis, Z Axis

Which axis to affect.



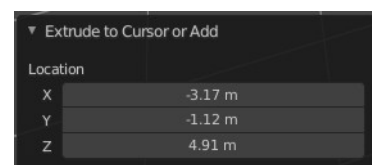
Extrude to Cursor or Add

Hotkey only tool. Extrude to the mouse position.

Last Operator Extrude to Cursor or Add

Location X Y Z

The location to extrude to.

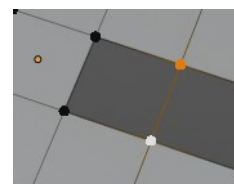
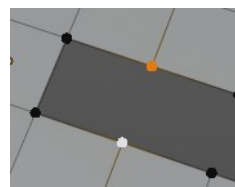
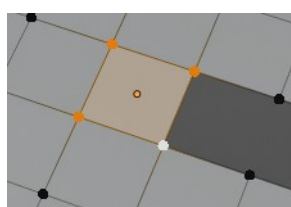
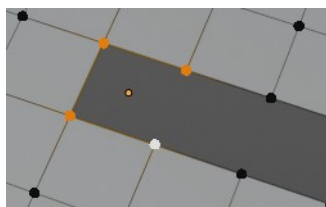


Make Edge/Face

Adds a face when you have edges selected. And Edges when you have Vertices selected. It's a Bridge tool.

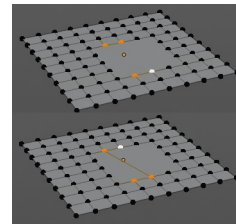
You can have either the one method or the other. When you select two adjacent vertices, then you select the edge too. And the tool works in edge mode then. In this case just the possible faces gets created. Not edges between single vertices.

First select the edges or Vertices that you want to bridge. Then click the New Edge/Face from Vertices Button.



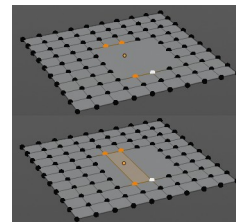
Connect Vertex Path

Connect Vertex path connects selected vertices, but takes the vertex order into account in which you selected the vertices. It just creates edges between vertices that are not connected in this order.



Connect Vertex Pair

Connect Vertex pair connects selected vertices and makes a face of the pairs.



Smooth Laplacian

Laplacian Smooth Vertex smooths out the angles between the selected vertices. It is a tool to reduce noise at the mesh. It works a bit different than the normal Smooth Vertex tool. And gives a different result. The Laplacian method allows you to preserve the volume, and to adjust border smoothing.

Last Operator Laplacian Smooth Vertex

Number of Iterations

Number of Iterations is the number of iterations that the smoothing action gets repeated. With 1 the smoothing is just performed once. With 10 it is performed ten times.

Lambda Factor

Lambda Factor is the strength of the smoothing.

Lambda Factor in border

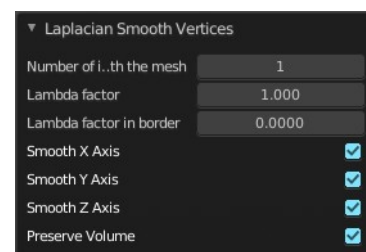
Lambda Factor is the strength of the smoothing in border areas.

Smooth Axis

The Smooth Axis check boxes allows you to limit the smoothing to specific world axis.

Preserve Volume

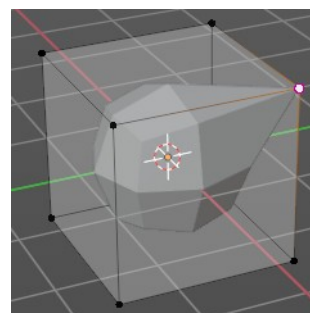
Preserve Volume preserves the volume of the object.



Vertex Crease

When you use a Subdivision Surface Modifier, then you can define the sharpness of selected vertices with this tool. Crease vertices will be marked colored in edit mode.

You will see a value in the header that indicates the current strength when you activate the tool. Move with the mouse to increase or decrease the value. Or type in a value while you are in this mode. You can also scale into negative range.



A negative crease value will subtract from the current active crease value in case it exists already from a former crease operation. A Crease value of -1 removes the crease from this edge.

Crease: -0.150

Last Operator Vertex Crease

Factor

Adjust the crease factor.



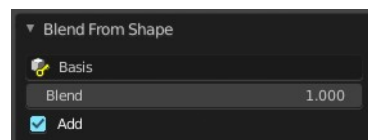
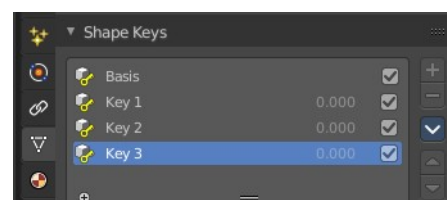
Blend from Shape

This tool requires to have a shape key at the mesh. It blends the selected shape key into the mesh.

Last Operator Blend from Shape

Drop-down box

Define which shape key should be used.



Blend edit box

Adjust the blend factor between the current shape and the shape that you want to blend here.

Add

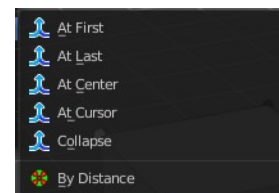
Add to blend shape instead of blending in.

Propagate to Shapes

This tool requires to have a shape key at the mesh. It applies the current vertex locations for the selected vertices to all other shape keys at the mesh.

Merge Vertices

Merge vertices together. When you pick a vertice, and add more vertices to the selection, then you get two more tools, to merge to the first or last vertice. When you box select, or use select all, then you get just the other three tools.



At First

Merges the current selected vertices at the first selected vertice.

At Last

Merges the current selected vertices at the last selected vertice.

At Center

Merges the geometry at the center of the selected vertices.

At Cursor

Merges the geometry at the 3D Cursor.

Collapse

Merges the geometry at the center of the selected vertices.

Last Operator Merge

Type

Type is the drop-down box again where you can choose what method to use for merge.



UV's

With UV's ticked the UV mapping will update with changes at the geometry.

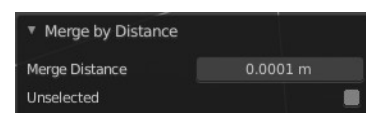
By Distance

Merges vertices that are very close to each other. The merge happens at the center. When you need more control then you should use the Merge Vertices tool.

Last Operator Merge by Distance

Merge Distance

Adjust the distance in which the vertices gets merged.

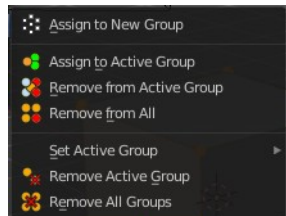


Unselected

Merge selected vertices also with other unselected vertices.

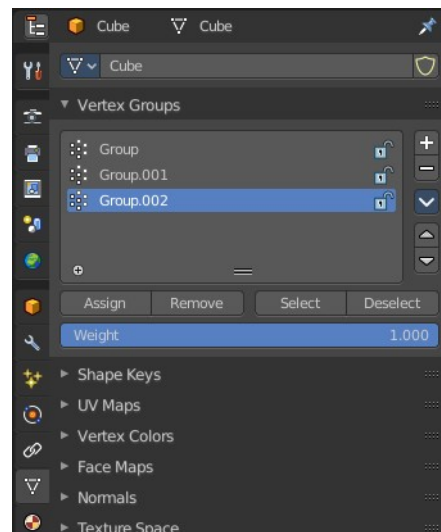
Vertex Groups

Vertex groups is a menu around vertex group functionality. The vertex groups can be found in the Object data tab in the Properties editor.



When there is no vertex group assigned yet then you can only see one menu item. The Assign To New Group button.

Once you have a vertex group assigned you will see the full functionality.



Assign to New Group

Assigns the mesh selection to a new vertex group.

Assign to active Group

Assigns the mesh selection to the currently active vertex group.

Remove from Active Group

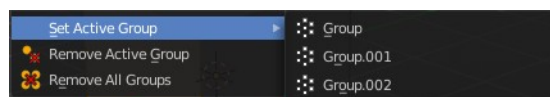
Removes the mesh selection from the currently active vertex group.

Remove from All

Removes the mesh selection from all vertex groups.

Set Active Group

Select a vertex group to be the active one.



Remove Active Group

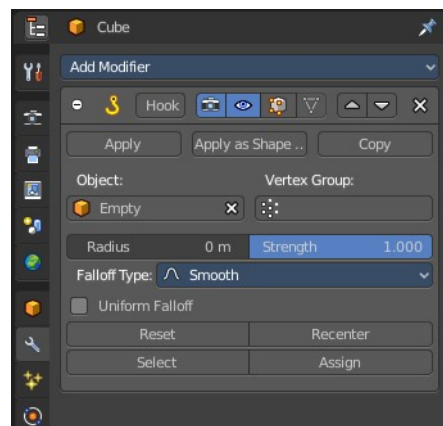
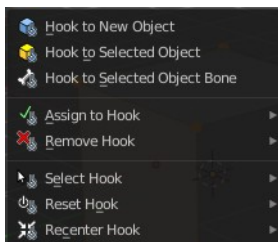
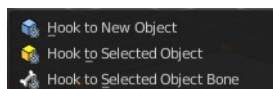
Removes the currently active vertex group.

Remove All Groups

Removes all vertex groups from the mesh.

Hooks

Hooks is a menu with tools around the hook modifier. You could also adjust the hook modifier from the Properties editor. But the menu items are more accessible.



When there is no hook modifier at the mesh then you just see three menu items. When there is minimum one hook modifier applied, then you will see an extended menu.

Hook to New Object

Creates a new Hook Modifier for the active object and assigns it to the selected vertices. It also creates an empty at the center of those vertices, which are hooked to it.

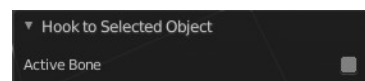
Hook to Selected Object

Does the same as *Hook to New Object*, but instead of hooking the vertices to a new empty, it hooks them to the selected object (if it exists). There should be only one selected object (besides the mesh being edited).

Last Operator Hook to Selected Object

Active Bone

Hook to the object(s) of the active bone.



Hook to Selected Object Bone

Does the same as *Hook to New Object*. But it sets the last selected bone in the also selected armature as a target.

Assign to Hook

Assign the selected vertices to the chosen hook modifier. Existing hooks gets overwritten. One vertex can be

assigned to more than one hook.

Remove Hook

Removes the chosen Hook Modifier from the object.

Select Hook

Selects all vertices assigned to the chosen Hook Modifier.

Reset Hook

Resets the chosen Hook Modifier.

Recenter Hook

Recenter the Hook Modifier.

Make Vertex Parent

Parents another object to the selected vertice(s).

Workflow:

In Object mode select the object that you want to parent to a vertex. Shift select the parent object so that both are selected. Enter Edit mode. Then select one vertex for a single point. Or three for an area. Then click the Make Vertex Parent button to make the relation.