



## 7.1.40 Editors - 3D Viewport - Header - Lattice - Edit mode - Lattice menu

### Table of content

Detailed Table of content.....	1
Edit Mode - Lattice Menu.....	4
Transform.....	4
To Sphere.....	4
Shear.....	5
Bend.....	6
Push/Pull.....	6
Warp.....	7
Randomize Transform.....	7
Move Texture Space.....	7
Scale Texture Space.....	9
Set Dimensions.....	10
Mirror.....	10
Interactive Mirror.....	10
X Global, Y Global etc.....	10
Snap.....	11
Last Operator Snap.....	11
Flip.....	12
Last Operator Flip (Distortion Free).....	12
Single Operators.....	12
Make Regular.....	12
Hooks.....	12
Make Vertex Parent.....	13

### Detailed Table of content

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Detailed Table of content.....	1
Edit Mode - Lattice Menu.....	4
Transform.....	4
To Sphere.....	4
Usage.....	4
Last Operator To Sphere Panel.....	4
Factor.....	4
Proportional editing.....	4
Proportional Falloff.....	4
Proportional Size.....	5
Connected.....	5
Projected(2D).....	5
Shear.....	5
Last Operator Shear.....	5
Offset.....	5
Shear Axis.....	5

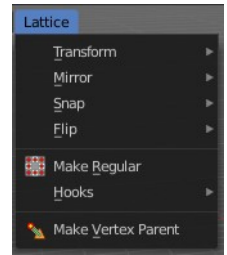
Axis.....	5
Axis Ortho.....	5
Orientation.....	5
Proportional editing.....	5
Proportional Falloff.....	5
Proportional Size.....	6
Connected.....	6
Projected(2D).....	6
Bend.....	6
Push/Pull.....	6
Last Operator Push/Pull.....	6
Factor.....	6
Proportional editing.....	6
Proportional Falloff.....	6
Proportional Size.....	6
Connected.....	6
Projected(2D).....	6
Warp.....	7
Last operator Warp.....	7
Warp Angle.....	7
Offset Angle.....	7
Min.....	7
Max.....	7
Randomize Transform.....	7
Last Operator Randomize Transform.....	7
Amount.....	7
Uniform.....	7
Normal.....	7
Random Seed.....	7
Move Texture Space.....	7
Last Operator Translate.....	8
Move X, Y Z.....	8
Orientation.....	8
Proportional editing.....	8
Proportional Falloff.....	8
Proportional Size.....	8
Connected.....	8
Projected(2D).....	8
Scale Texture Space.....	9
Last Operator Resize Texture.....	9
Move X, Y Z.....	9
Orientation.....	9
Proportional editing.....	9
Proportional Falloff.....	9
Proportional Size.....	9
Connected.....	9
Projected(2D).....	10
Set Dimensions.....	10
Last Operator Set Dimensions.....	10
New Dimensions.....	10
Mirror.....	10
Interactive Mirror.....	10
X Global, Y Global etc.....	10

Last Operator Mirror.....	11
Orientation.....	11
Constraint Axis.....	11
Proportional editing.....	11
Proportional Falloff.....	11
Proportional Size.....	11
Connected.....	11
Projected(2D).....	11
Snap.....	11
Last Operator Snap.....	11
Offset.....	11
Flip.....	12
Last Operator Flip (Distortion Free).....	12
Flip Axis.....	12
Single Operators.....	12
Make Regular.....	12
Hooks.....	12
Hook to New Object.....	12
Hook to Selected Object.....	12
Last Operator Hook to Selected Object.....	13
Active Bone.....	13
Hook to Selected Object Bone.....	13
Assign to Hook.....	13
Remove Hook.....	13
Select Hook.....	13
Reset Hook.....	13
Recenter Hook.....	13
Make Vertex Parent.....	13

## Edit Mode - Lattice 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.



## Transform

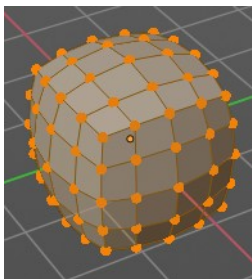
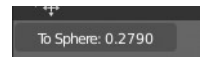
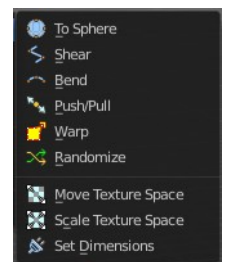
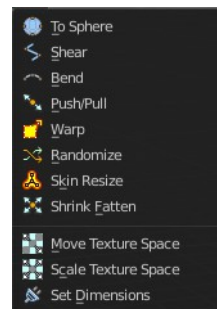
### To Sphere

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

In Object mode this tool requires to have more than one object selected.

### Usage

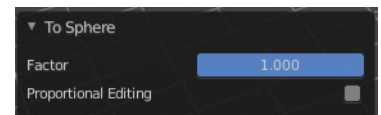
Select the vertices, activate the tool, then drag the mouse in the 3D viewport. In the header you will read the current factor then. Which tells you how close you are towards the sphere shape.



### Last Operator To Sphere Panel

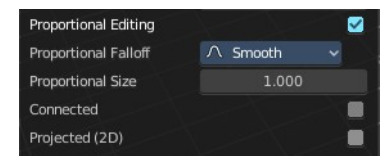
#### Factor

The factor to transform the selection into a sphere 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.

## **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***

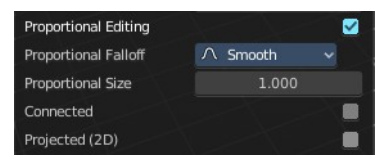
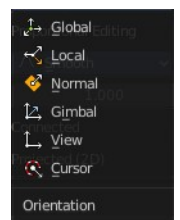
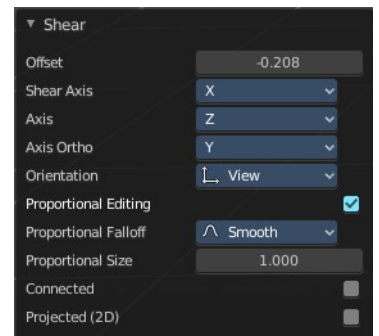
Choose the orientation for the shear action.

### ***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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## Bend

Bends the selection.

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## Push/Pull

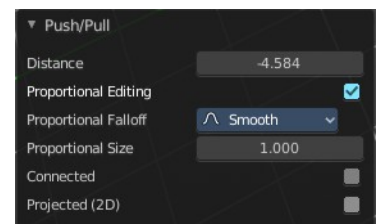
It pushes or pulls the object positions relative to the center of the selection.

In Object mode this tool requires to have more than one object selected.

## Last Operator Push/Pull

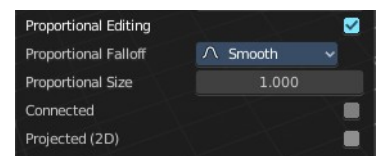
### Factor

Adjust the strength of influence of the tool.



### 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.

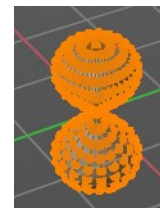
### Projected(2D)

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.

---

## Warp

Warp a mesh selection between two defined points.



### Last operator Warp

#### **Warp Angle**

The strength of the warp effect

#### **Offset Angle**

An offset angle to bend sideways.

#### **Min**

The start point.

#### **Max**

The end point.



---

## Randomize Transform

This tool allows randomizes the positions of the selected vertices.

### Last Operator Randomize Transform

#### **Amount**

Adjust the amount.

#### **Uniform**

The uniform offset distance.

#### **Normal**

Align the offset direction to the normals.

#### **Random Seed**

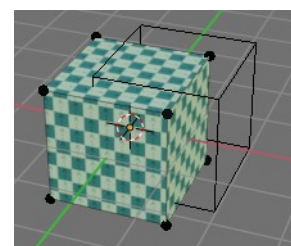
The seed value for randomization.



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## Move Texture Space

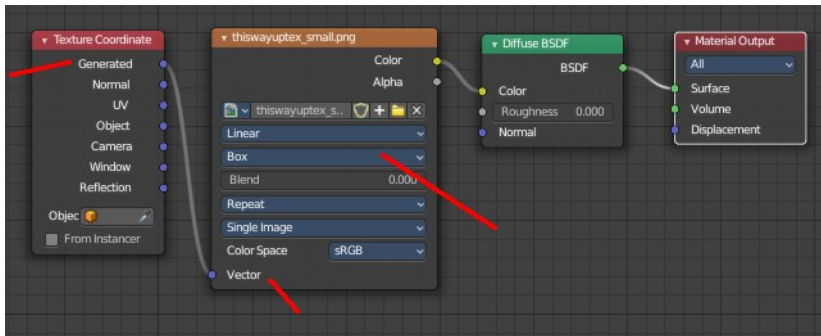
This tool relies at the move tool. With the difference that it moves the texture space instead of the object. It has also a very special use case, and just works with a material with a Texture Coordinate / Generated node. And requires to have the shading at Material or Rendered to see a result in the viewport.



In the viewport you will see the UV cage in black color. In the header you will see the values for the current position of the UV cage.

Dx: -0.1501 m Dy: 0.05851 m Dz: 0.2117 m (0.2661 m)

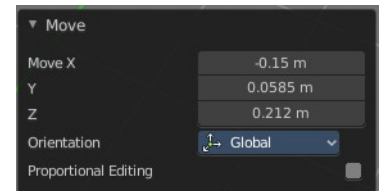
Note that once done and applied, there is no way to reset the UV cage back to zero. When you repeat the operation, then the values will start at 0 again. Even when the UV cage is already offset.



## Last Operator Translate

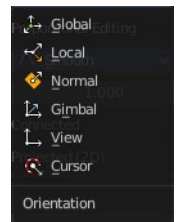
### Move X, Y Z

Limit the position relative to the source object.



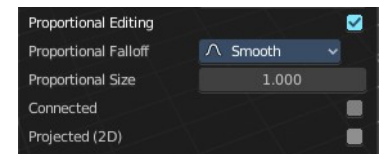
### Orientation

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.

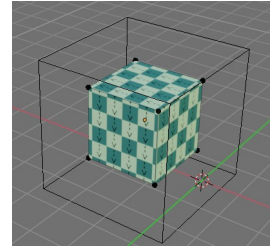
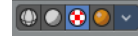
### Projected(2D)

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.

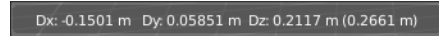


## Scale Texture Space

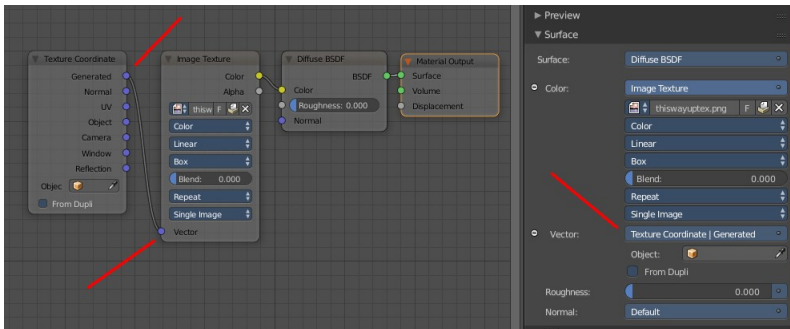
This tool relies at the scale tool. With the difference that it scales the texture space instead of the object. It has also a very special use case, and just works with a material with a Texture Coordinate / Generated node. And requires to have the shading at Material or Rendered to see a result in the viewport.



In the viewport you will see the UV cage in black color. In the header you will see the values for the current position of the UV cage.



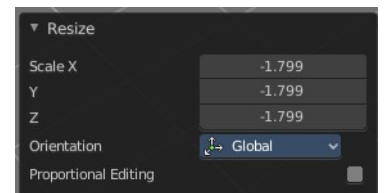
Note that once done and applied, there is no way to reset the UV cage back to zero. When you repeat the operation, then the values will start at 0 again. Even when the UV cage is already offset.



## Last Operator Resize Texture

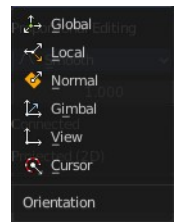
### Move X, Y Z

Limit the position relative to the source object.



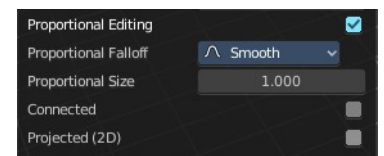
### Orientation

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.

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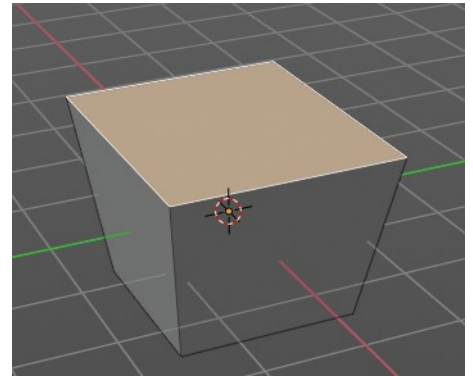
## Set Dimensions

Edit Mode Only!

Normally all scale operations in Bforartists are relative to the current selection and dimensions. And you always start with a relative value of 1.

Set dimensions allows to scale mesh selections in absolute world values. No matter how the initial values are. The new values gets set in the Last Operator.

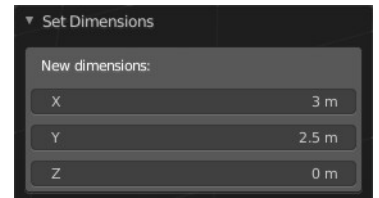
Set dimensions is an add-on. You can turn it off in the add-ons section of the user preferences when you want.



## Last Operator Set Dimensions

### New Dimensions

When you activate the tool then you will see the world coordinates of the selection. Change the values to other world coordinates.



## 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

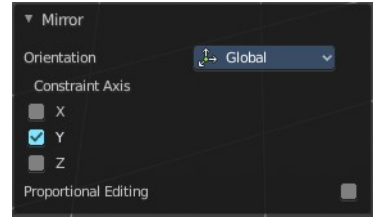


### X Global, Y Global etc.

Mirrors the selection around the chosen axis.

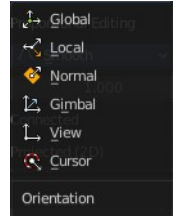
## Last Operator Mirror

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.

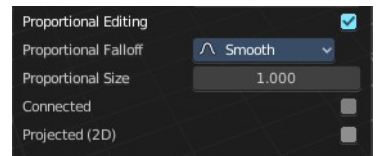


### Constraint Axis

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

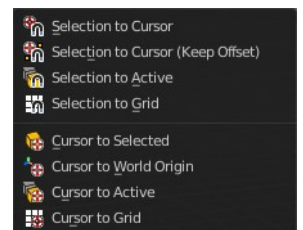
The proportional falloff gets calculated for connected parts only.

### 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.

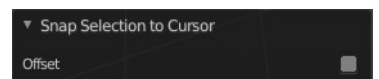
## Snap

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.

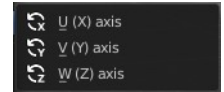


### Offset

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

## Flip

the lattice object along the world axis X, Y or Z .



## Last Operator Flip (Distortion Free)

### Flip Axis

Flip the lattice object along the world axis X, Y or Z .



## Single Operators

### Make Regular

Set the UVW control points by a uniform distance apart.

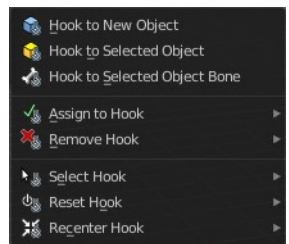
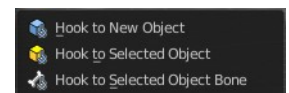
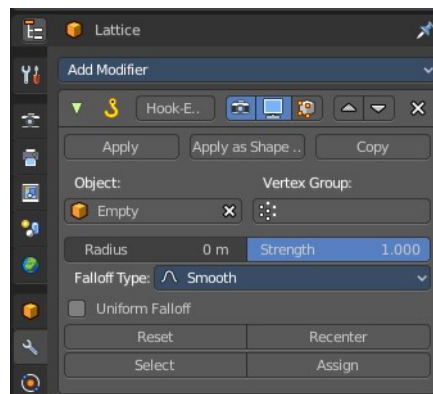
## Hooks

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.

You need to have at least one vertice of the lattice object selected.

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

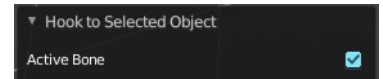
Does the same as *Hook to New Object*, but instead of hooking the vertices to a new empty, it hooks them to the selected object (if it exists). There should be only one selected object (besides the mesh being edited).

## ***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 an object to the selected vertice(s)

In Object mode select the object that you want to parent to a vertex. Shift select the Lattice 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.