

3.2.5.4 Editors - 3D View - Transforms - Scale

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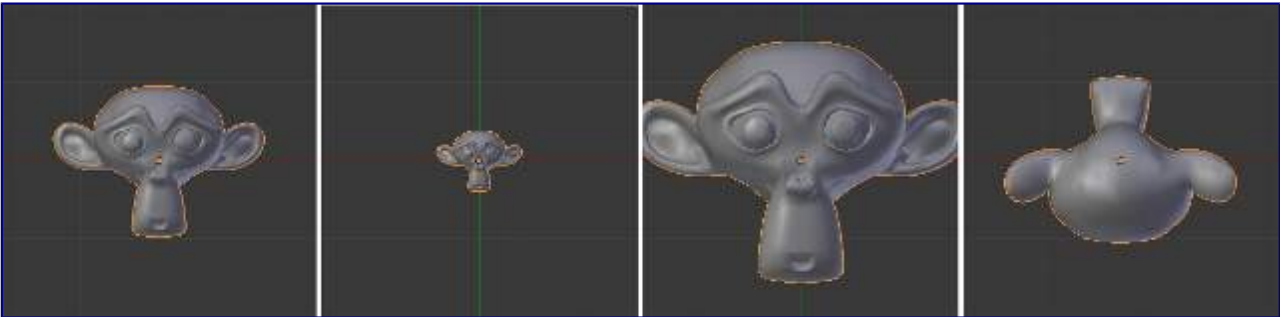
Scale

Reference
Mode: <i>Object</i> and <i>Edit</i> modes
Menu: Object/Mesh/Curve/Surface ▶ Transform ▶ Scale
Hotkey: S

Description

Pressing S will enter the *Scale* transformation mode where the selected element is scaled inward or outward according to the mouse pointer’s location. The element’s scale will increase as the mouse pointer is moved away from the Pivot Point and decrease as the pointer is moved towards it. If the mouse pointer crosses from the original side of the Pivot Point to the opposite side, the scale will continue in the negative direction and flip the element.

Read more about Pivot Points



Basic scale usage. From left to right, the panels show: the original Object, a scaled down Object, a scaled up Object and a scale-flipped Object.

There are multiple ways to scale an element which include:

- The keyboard shortcut (S)
- The 3D manipulator widget
- The Properties menu (N)

Basic scale usage and common options are described below. For additional information, you may wish to read the Transform Control and Orientation pages which provide more information about options such as Precision, Axis Locking, Numeric Input, Snapping and the different types of Pivot Point.

Read more about Transform Control

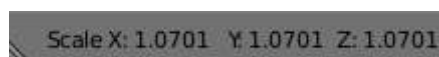
Read more about Transform Orientations

Usage

Scaling using the keyboard shortcut

- Use RMB to select the elements you want to scale.
- Tap S once to enter scale mode.
- Scale the elements by moving the mouse.
- LMB click to accept changes.

The amount of scaling will be displayed in the bottom left hand corner of the 3D window.



Scale values

Constraining the scaling axis (axis locking)

Scaling can be constrained to a particular axis or axes through the use of *Axis Locking*. To constrain scaling, the following shortcuts can be used:

- S, X: Scale only along the **X Axis**
- S, Y: Scale only along the **Y Axis**
- S, Z: Scale only along the **Z Axis**

Axis locking can also be enabled by pressing the MMB after enabling scaling and moving the mouse in the desired direction e.g.

- S, move the mouse along the X axis, MMB: Scale only along the **X Axis**

Read more about Axis Locking

Fine Tuning The Scaling

Precise control can be had over scaling through the use of the Shift and Ctrl keys to limit scaling to discrete amounts. You can also enter a *numerical value* in Blender Units (BU) to specify the amount of scaling after initiating a scale transformation.

- Hold Ctrl down while scaling to scale the selected element in degree 0.1 BU increments.
- Hold Shift down while scaling to scale the selected element in very fine increments.
- Hold Shift-Ctrl down while scaling to scale the selected element in 0.01 BU increments.
- Press S, type in a number and press Return to confirm.

Tip

Orientation dependent scaling

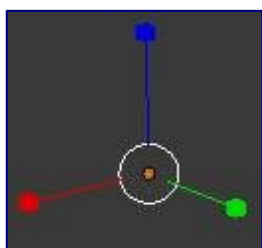
By default, all scaling happens around a Global Orientation. You can change the scaling orientation by pressing the axis key twice. For example, pressing S, X, X will by default set scaling to occur around the local orientation.

Read more about Precision Control

Read more about Numerical Transformations

Read more about Transform Orientations

Scaling with the 3D Transform Manipulator



Scaling Transform Manipulator

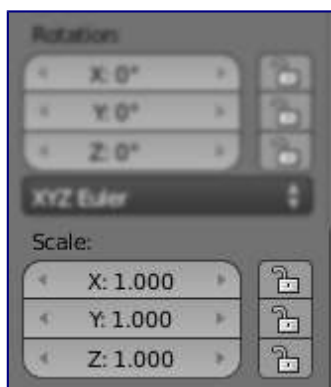
In the 3D View header, ensure that the Transform Manipulator is enabled (the red, green, and blue triad is selected). Set the manipulator type to scale (the highlighted square icon shown below).



- Select your element with RMB.
- Use LMB and drag any of the three colored axes on the scaling manipulator to scale your object along that axis. You can also use Shift, Ctrl or numeric input with the 3D manipulator widget for further control.
- Your changes will be applied when you release LMB or press Spacebar or Return. Your changes will be cancelled if you press RMB or Esc.

Read more about the 3D Transform Manipulator

Scaling with the Properties Panel



Scale transform properties panel.

Scale values can also be specified in the Properties panel (N) by altering the amount value in the scaling slider of the Transform panel. Scaling along particular axes can be enabled or disabled by toggling the padlock icon.

[Read more about Panels](#)

[Read more about scaling modes](#)