Artisan User Guide (v. 1.2)

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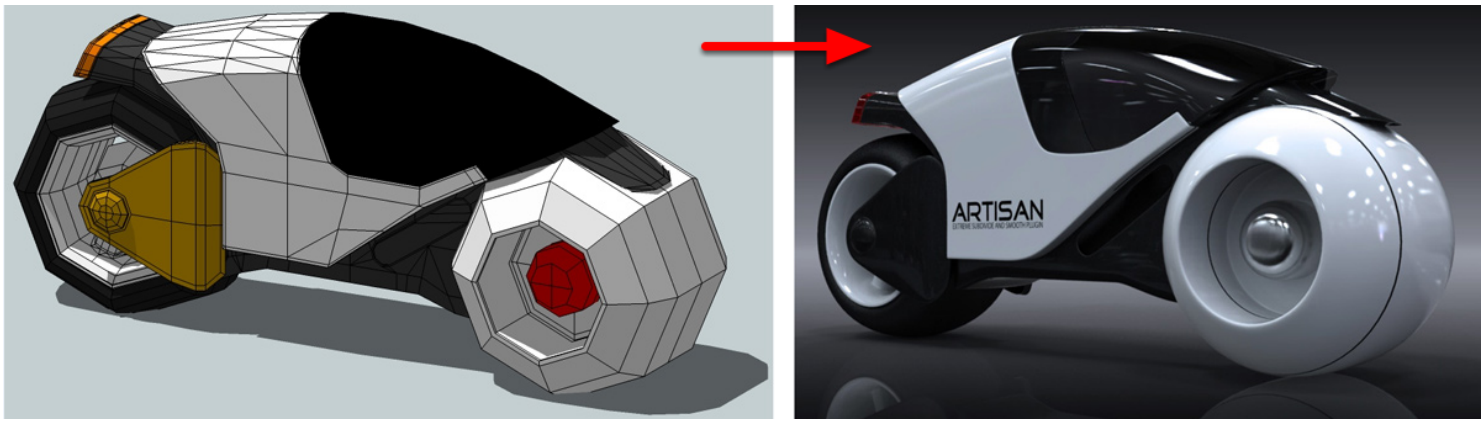
Introduction and Installation

What is Artisan?



Artisan is a set of organic tools for SketchUp. It is a plugin written by Dale Martens (aka 'Whaat') who also wrote the SketchUp plugin 'Subdivide and Smooth' which was released in 2008 at www.smustard.com.

Artisan builds upon the previous features of 'Subdivide and Smooth' (sudivision surface modeling) while adding many more powerful modeling features including:

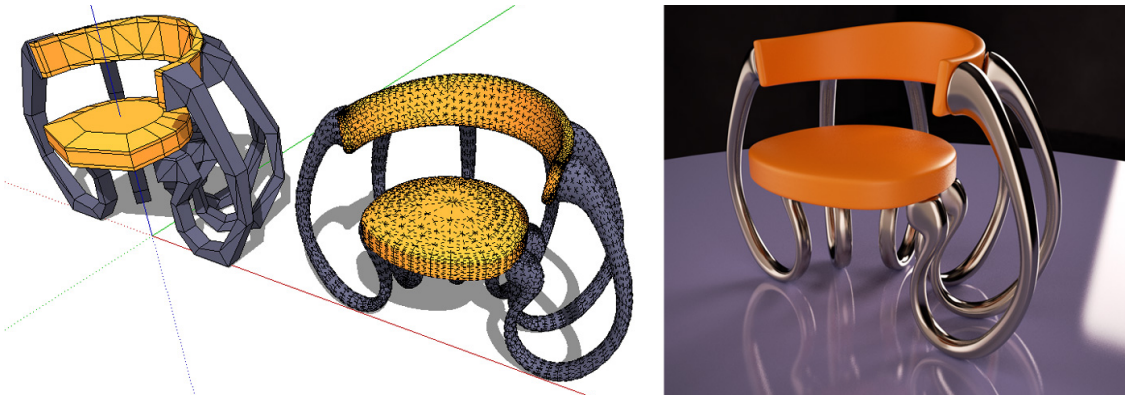
- Sculpting Tools (sculpt, smooth, inflate, flatten, pinch)
- Vertex Transformation (move, rotate, scale)
- Soft Selection
- Make Planar
- Polygon Reduction

The powerful organic modeling features of Artisan are highly suitable for modeling objects such as:

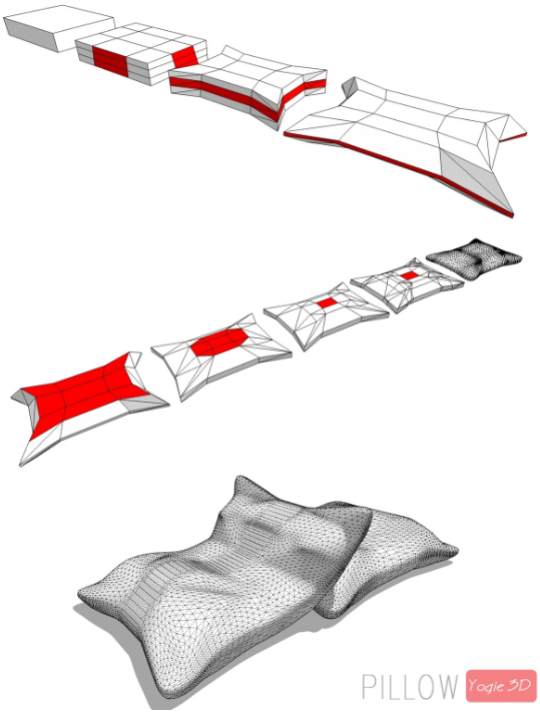
- Terrain
- Furniture
- Characters
- Abstract Sculptures / artwork / vases
- Vehicles and machines
- Fabric, curtains, and pillows
- Rocks, tree trunks, and plants
- Plumbing fixtures (faucets, bath tubs, toilets, sinks)

Below are some images of models that were created using the Artisan plugin. Images are copyright to the model creator and are used with permission. Some images have been rendered using additional software.

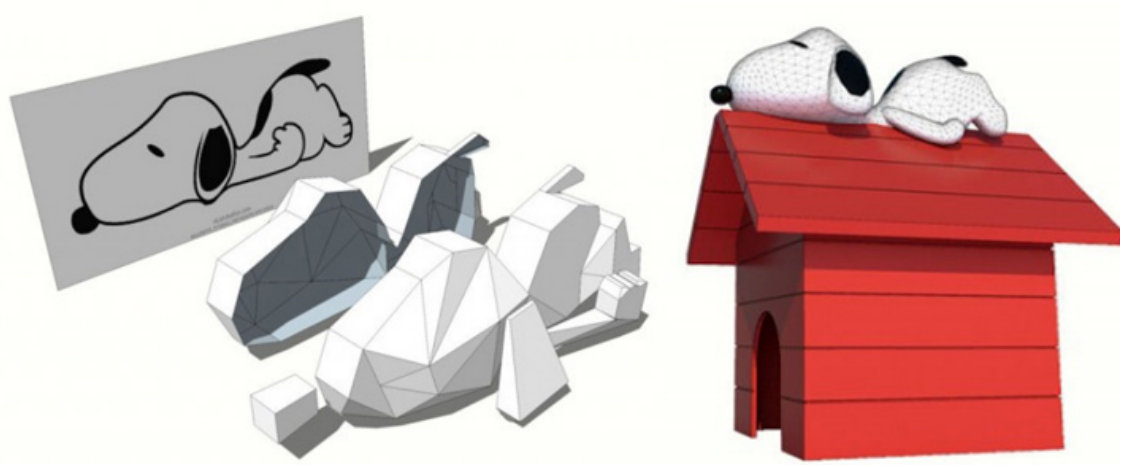
Chair by 'cotty'



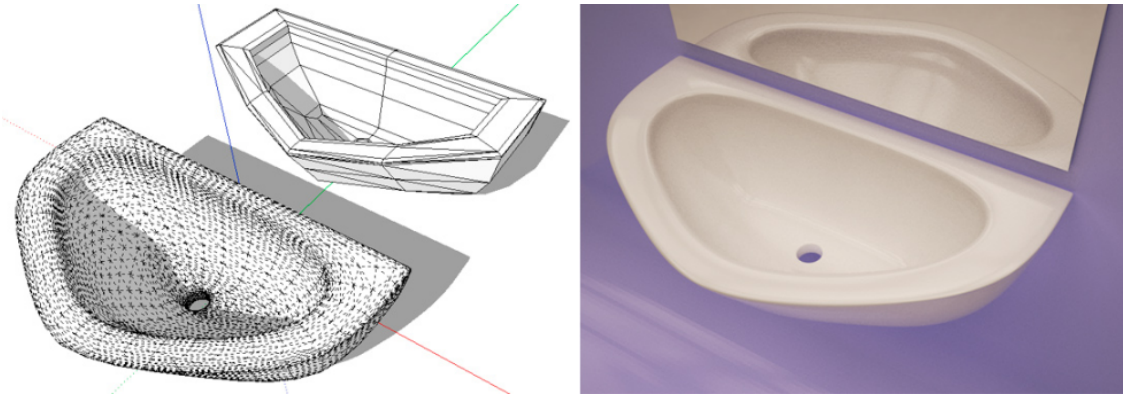
Pillow by 'Yogie3D'



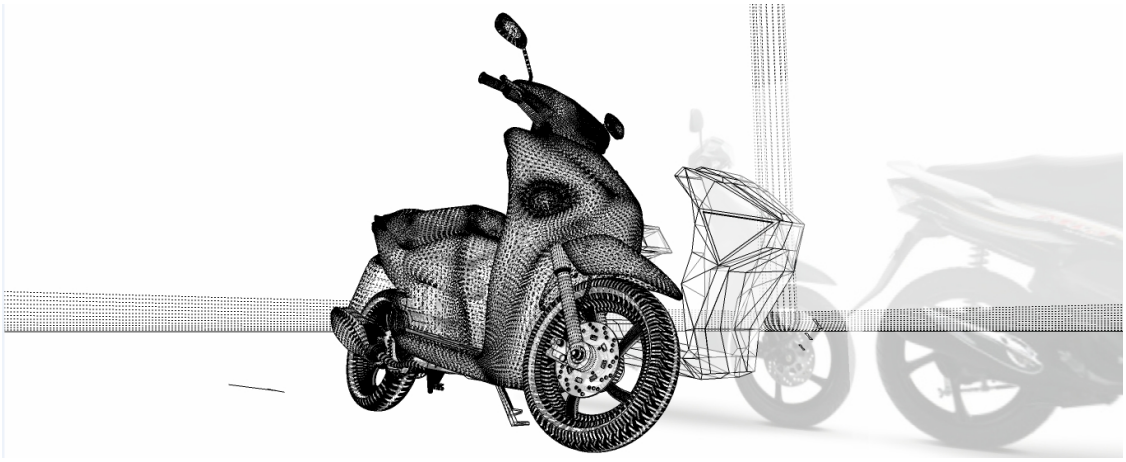
Snoopy by 'solo'



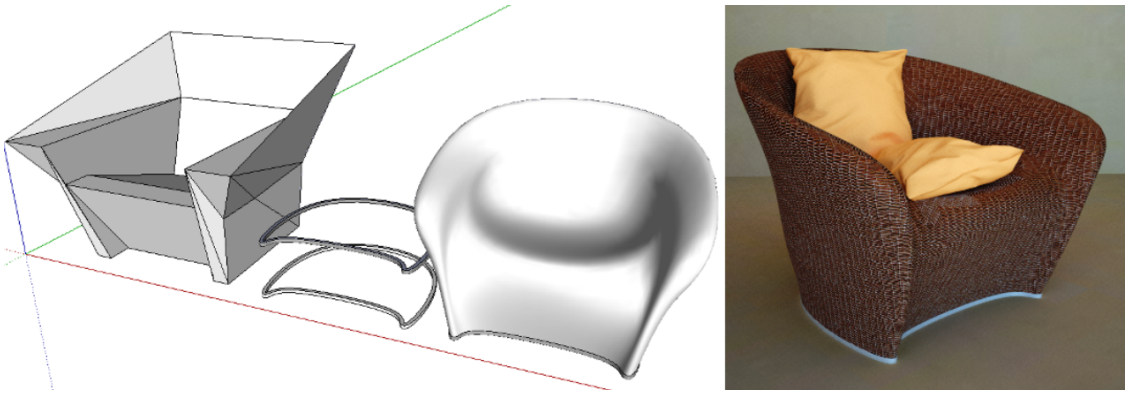
Basin by 'cotty'



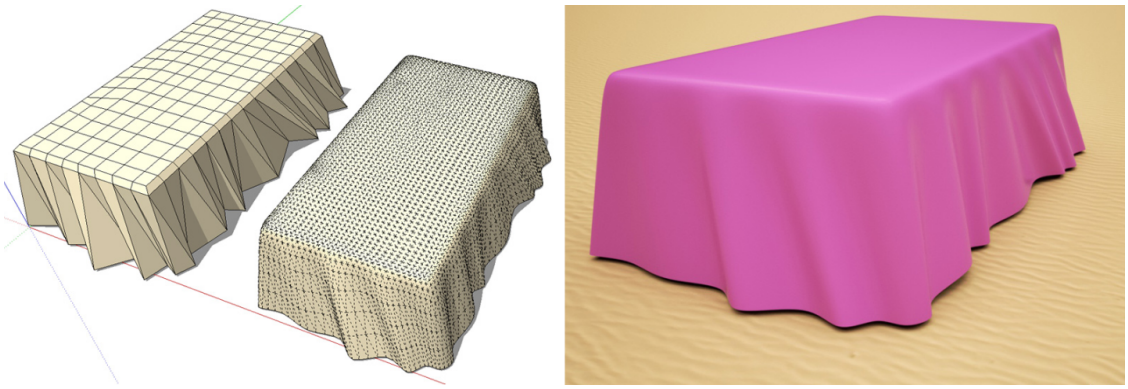
Scooter by 'Yogie3D'



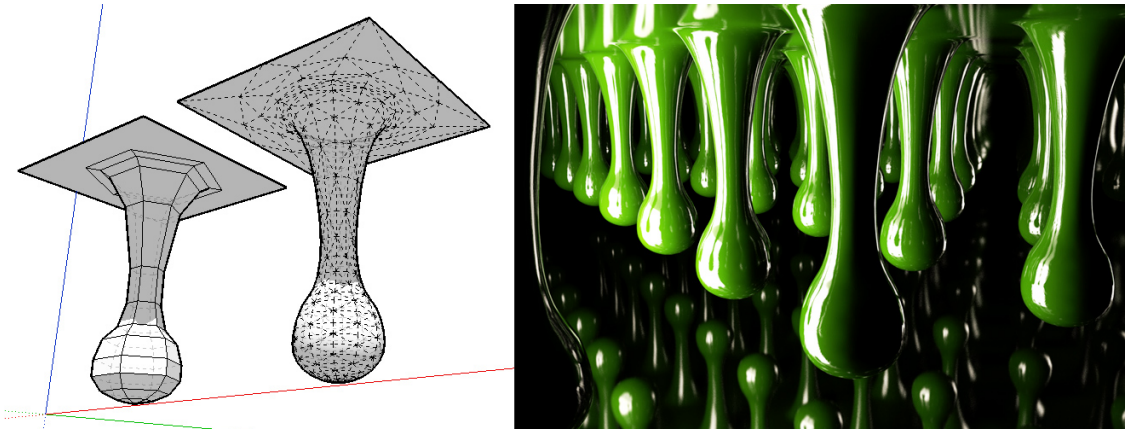
Rattan Chair by 'ninopiamonte'



Fabric by 'cotty'



Abstract Drops by 'cotty'



What's New in Artisan 1.2?

The following features and improvements have been added in this version:

- Multi-language support - Change the current language by going to Artisan->Settings->Language
- Vertex Scale Tool - Scales the selection of vertices and operates with either normal selection or soft selection
- Greatly enhanced performance of the sculpting brush. It should now be significantly easier to sculpt high-poly geometry.
- Auto-smooth sculpting - Enable this setting by going to Artisan->Settings->Auto-smooth Sculpt. This setting will automatically smooth brush strokes from the sculpt brush (works in normal sculpt mode only).
- You can now use the SHIFT modifier when sculpting (in sculpt mode) to constrain vertical deformation only
- You can now use the SHIFT modifier when sculpting (in flatten mode) to constrain flattening to a horizontal plane
- Sculpting strength can now be adjusted for the sculpt brush in pinch, smooth, and flatten modes
- By sculpting in smooth mode with the strength vector reversed, jitter can be added to the vertices
- By sculpting in flatten mode with the strength vector reversed, sharp peaks and valleys can be created
- Smooth Selection and Subdivide and Smooth of selected faces is now more robust and can handle more difficult geometry without giving error messages to the user.
- The sculpt tool in flatten mode now flattens vertices toward the plane of the first face clicked on
- Vertices that have been creased now stay locked in place during sculpting operations
- More options were added to the Crease Selection tool to allow creasing of boundary edges and vertices

The following issues and bugs have now been fixed:

- Previously, the Vertex Rotate tool required a pre-selection of vertices. This is no longer the case. Similarly to the Vertex Move tool, you do not need to first select vertices prior to using this tool.
- The SHIFT or CTRL keys can now be used to lock the protractor axis of the Vertex Rotate tool.
- Previously, performance of Mac systems was reduced due to the number of status bar progress updates during some operations. This has now been fixed and Mac users should see better performance when using tools such as the Poly Reduction tool.
- Previously if the user pushed the numeric zero key when using a Vertex Transformation tool,

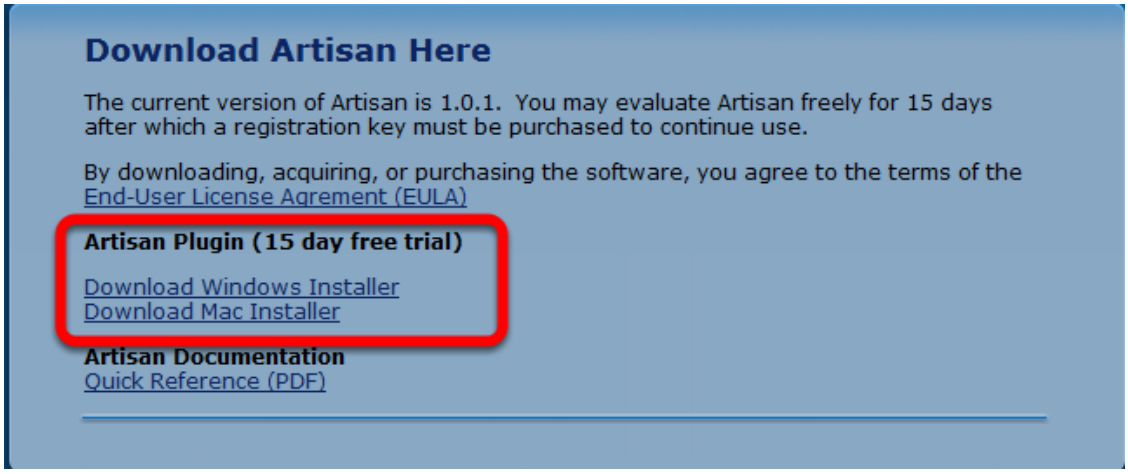
the soft selection mode would change. This bug is now fixed.

- Previously, if the brush mirror plane was active, when changing the brush size by holding an arrow key and mouse-dragging, the mirrored brush cursor would move up or down. This has now been fixed.
- The triangulation algorithm has been improved. This helps mainly during other operations which required pre-triangulation such as the Smooth Selection tool.
- There was a bug where the soft selection and sculpt radius size would change when a different tool was selected. This should now be fixed.

Download Artisan

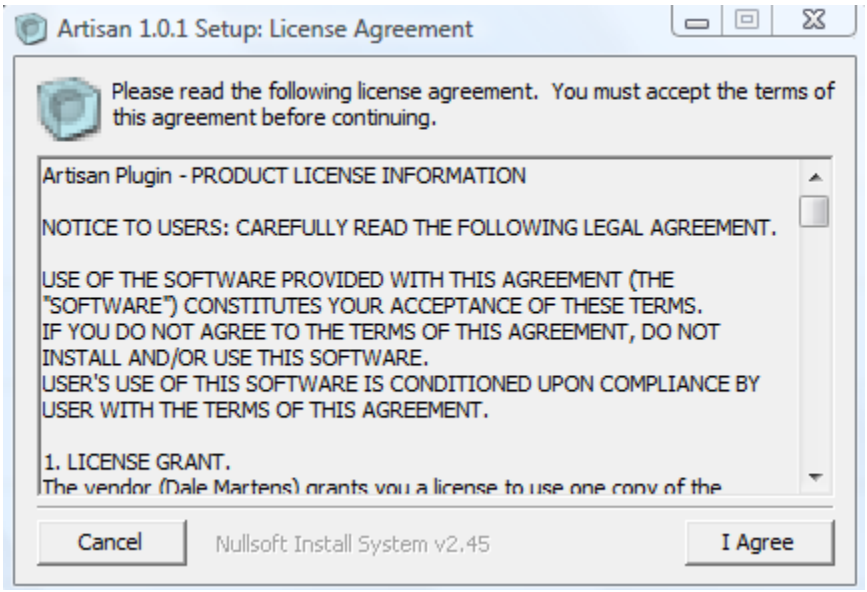
Begin by downloading the free trial from the Artisan website.

Download Artisan



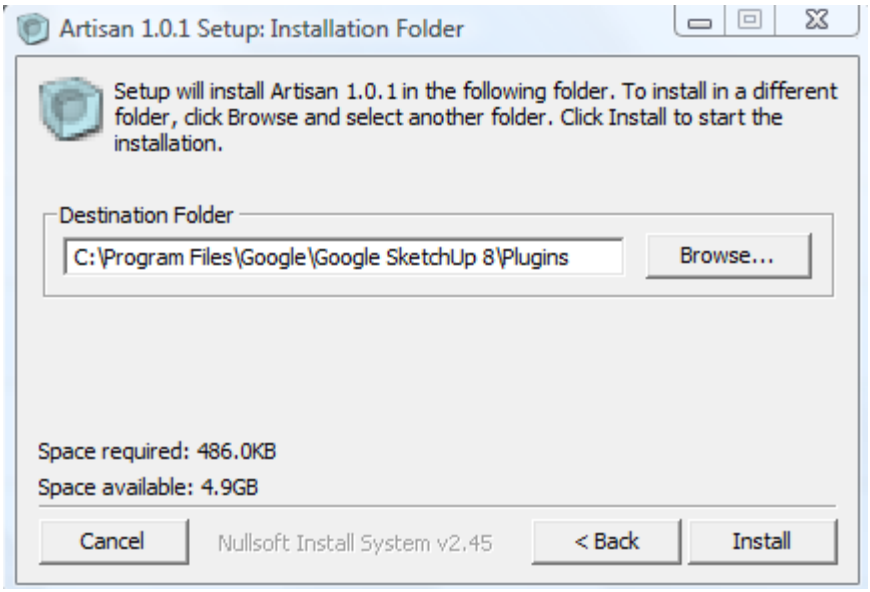
Click either the Windows Installer link or the Mac Installer link to begin downloading the plugin.

Run the Installer



After downloading, double-click the installer file to install the plugin.

Verify the Correct Destination Folder



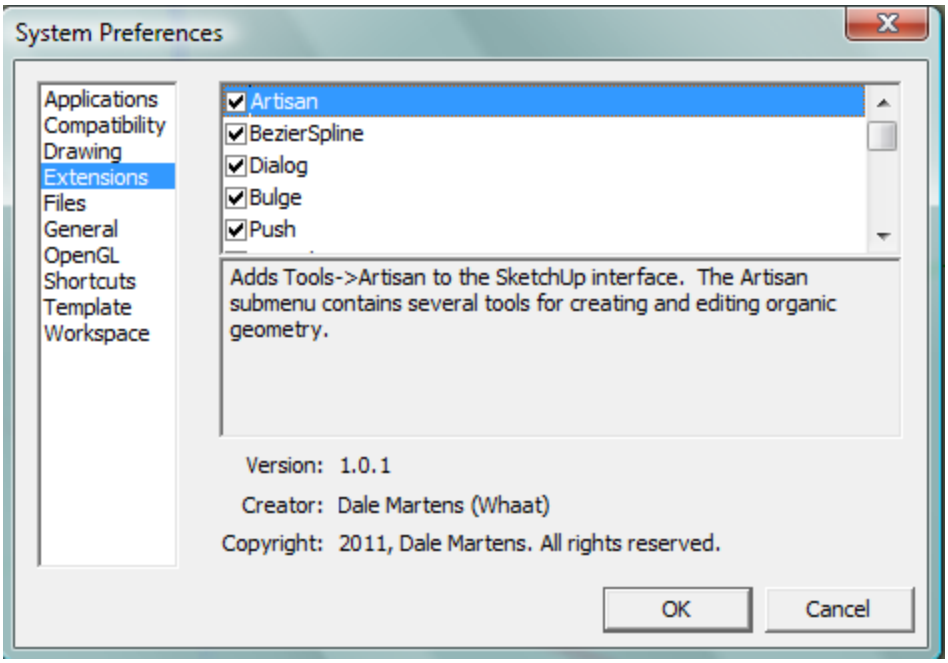
The plugin should install in the destination folder automatically. If you have more than one version of SketchUp, you may need to run the installer again and change the destination folder.

Launch SketchUp

After installation is complete, launch SketchUp. You should see the Artisan toolbar if installation was successful.

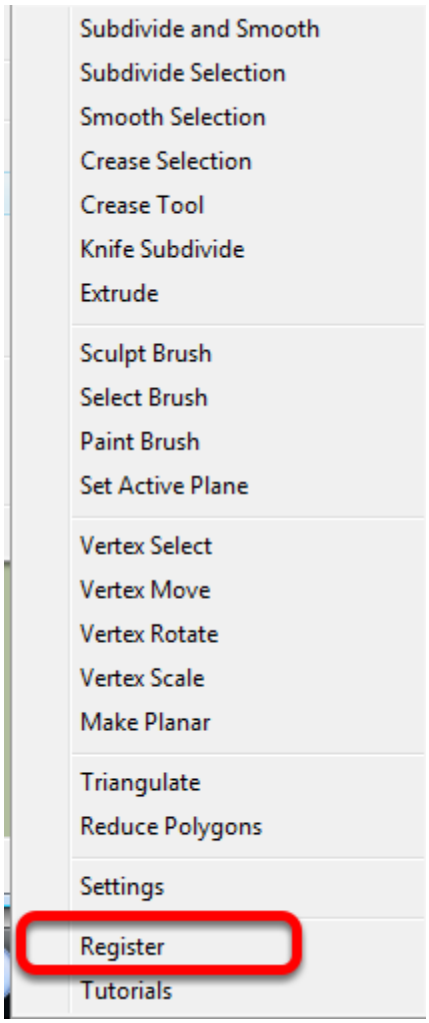
Anew menu item (Tools->Artisan) should now be added. Note that there are features available in the menu that are not found in the toolbar.

Extensions Preferences



If you open the Preferences->Extensions dialog, you should see the Artisan extension is enabled. If it is not enabled, 'check' it and relaunch SketchUp.

Register Artisan



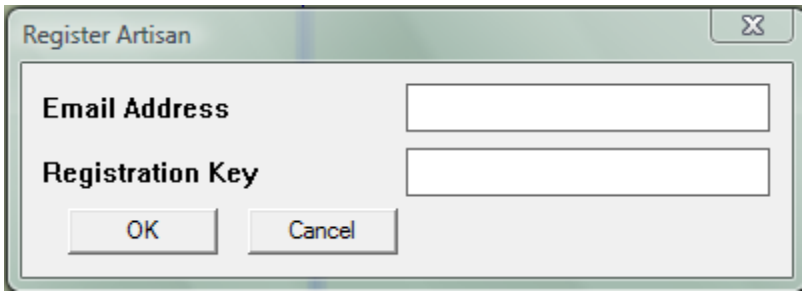
After installating Artisan for the first time, you have 15 days to freely evaluate it. After 15 days, you must purchase a license and registration code in order to continue using the plugin.

You can purchase a license for Artisan at 'artisan4sketchup.com.'

After purchasing, you will be emailed a registration code.

Go to Tools->Artisan->Register to enter the code and register your license.

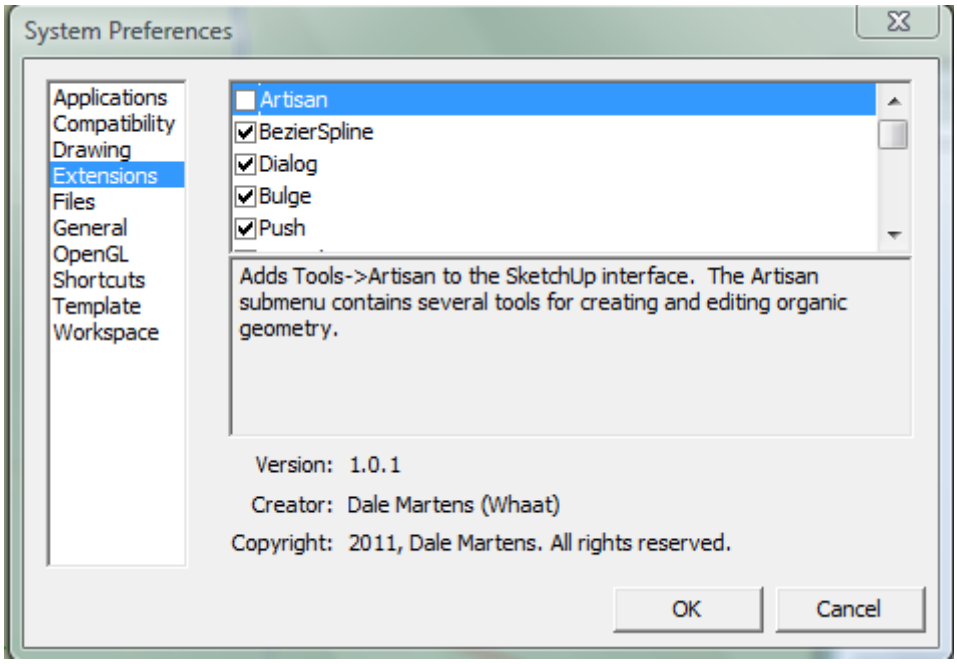
Enter License Information



You must enter your Paypal email address and code exactly as shown in the email. Use Copy/Paste (CTRL+C and CTRL+V) to copy the code from the email and paste it into the registration dialog box.

After entering a valid email address and registration key, your copy of Artisan will be unlocked and the 15 day trial limit will be removed.

Disable the Artisan Extension



The simplest way to remove Artisan is to disable the extension from the Preferences->Extensions window.

Uncheck the Artisan extension to disable it. Artisan will no longer load when launching SketchUp. However, Artisan will still be available to use in the future if you would like to re-enable it.

Removing Artisan from your Computer

Artisan is installed in the SketchUp plugins folder:

Windows: C:\Program Files\Google\Google SketchUp 8\Plugins

Mac: Macintosh HD/Library/Application Support/Google Sketchup 8/SketchUp/Plugins

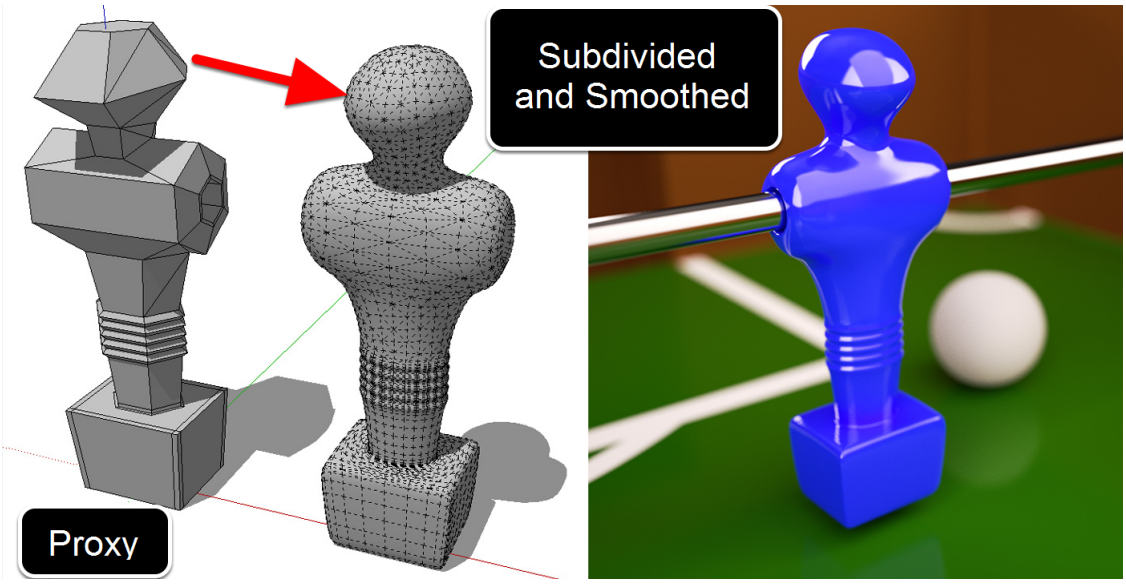
To remove Artisan from your computer, delete the following files from within the plugins folder:

artisan_loader.rb
artisan (folder)

Subdivision Modelling

Subdivide and Smooth

Introduction



The 'Subdivide and Smooth' tool is probably the most powerful feature inside Artisan. It allows you to model a rough low-poly approximation to the final 3D model and then by applying the tool, the model will be transformed into the smoothed shape that you are trying to achieve.

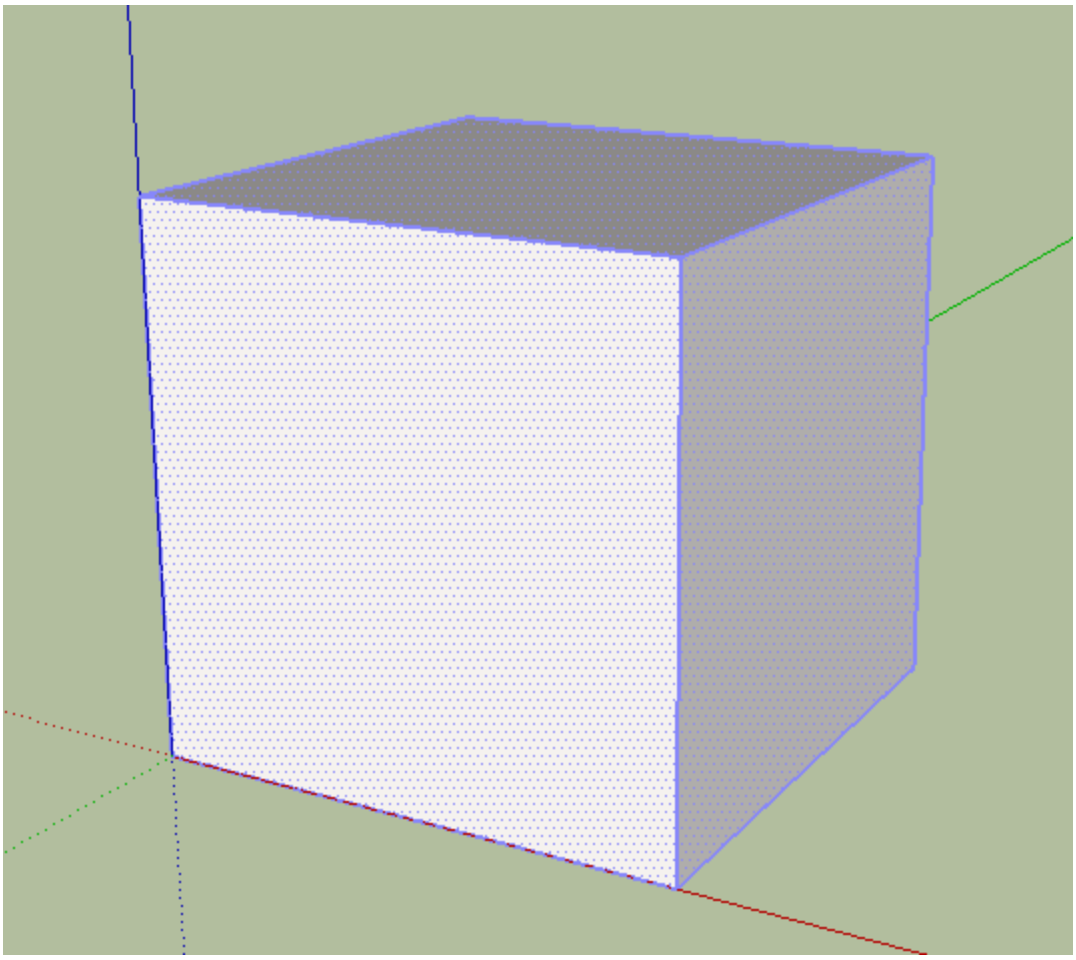
By keeping the proxy (low-poly version) of the model as simple as possible, the modeling process will become the most efficient.

The tool works by first subdividing all of the selected faces and then smoothing the resulting mesh. This process can be repeated several times (up to 4 iterations). Each iteration will result in a smoother model with more polygons.

Launching the Tool

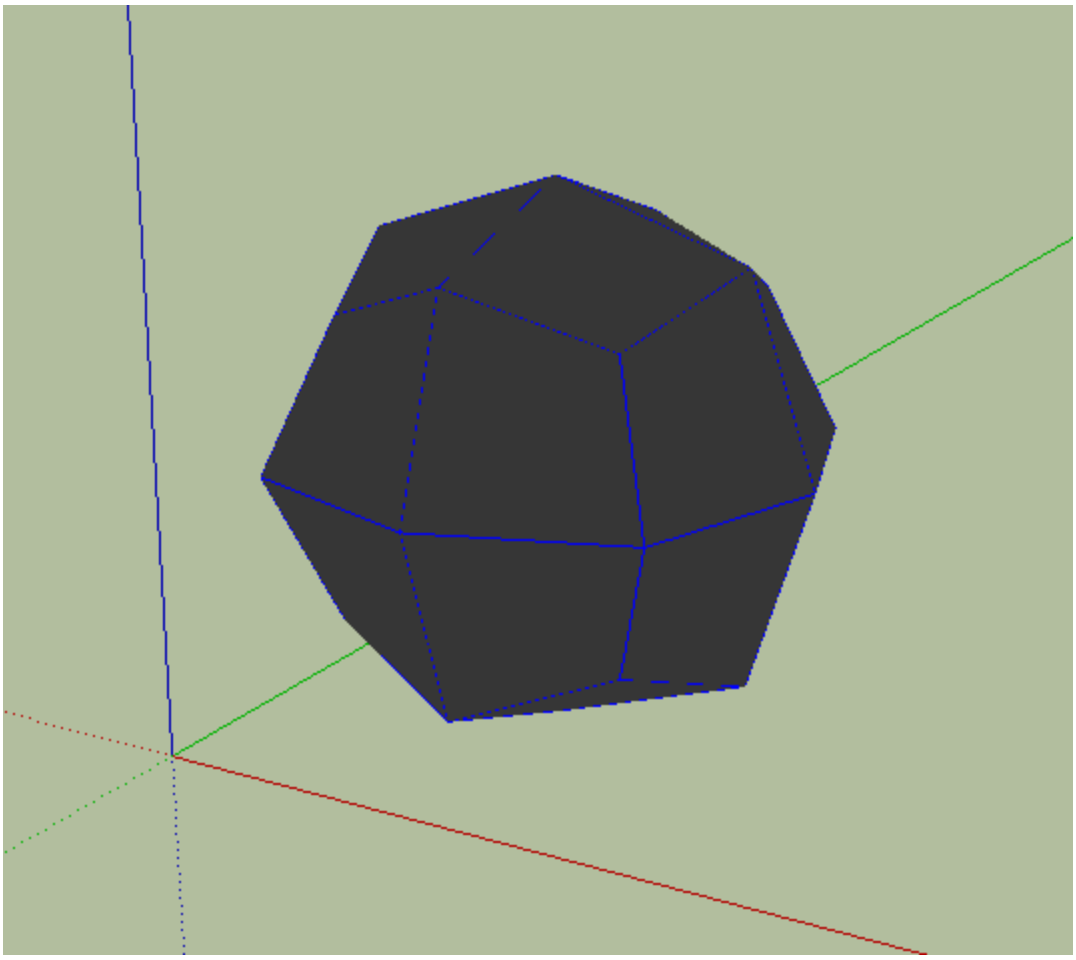
Select faces, a group, or a component and then click the icon on the Artisan toolbar. The tool can also be launched using the menu item Tools->Artisan->Subdivide and Smooth.

Operation on a Selection of Faces



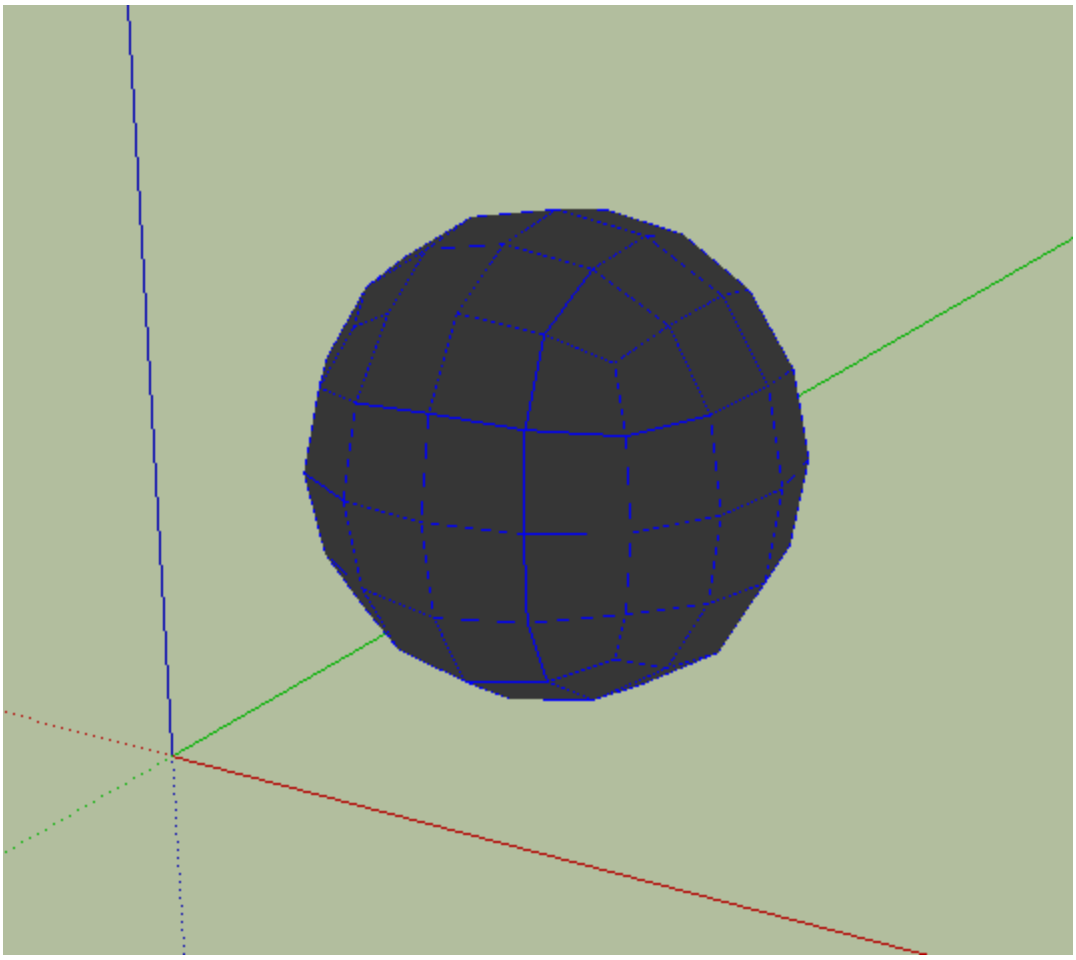
Select the faces and then launch the tool.

Operation on a Selection of Faces



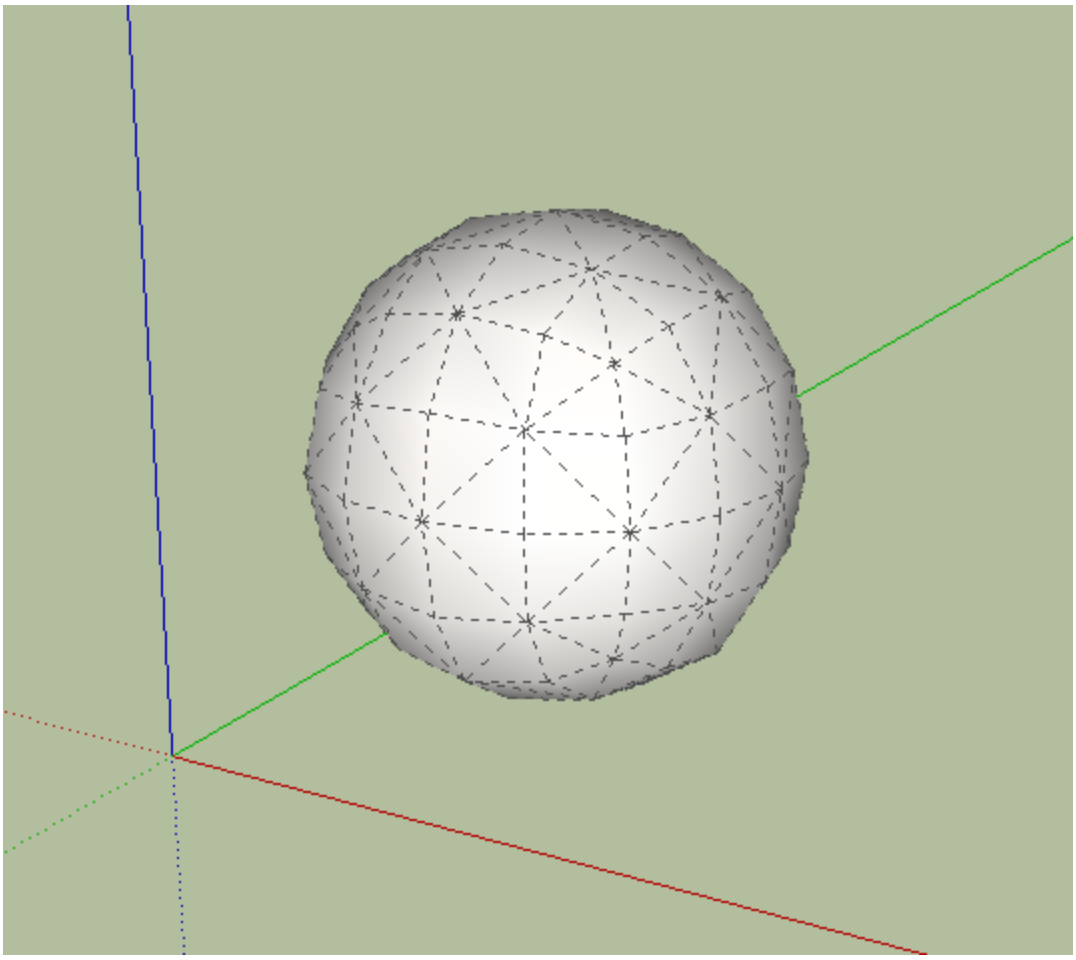
After launching the tool, you will see a preview of the sub-smoothed mesh.

Changing the Number of Iterations



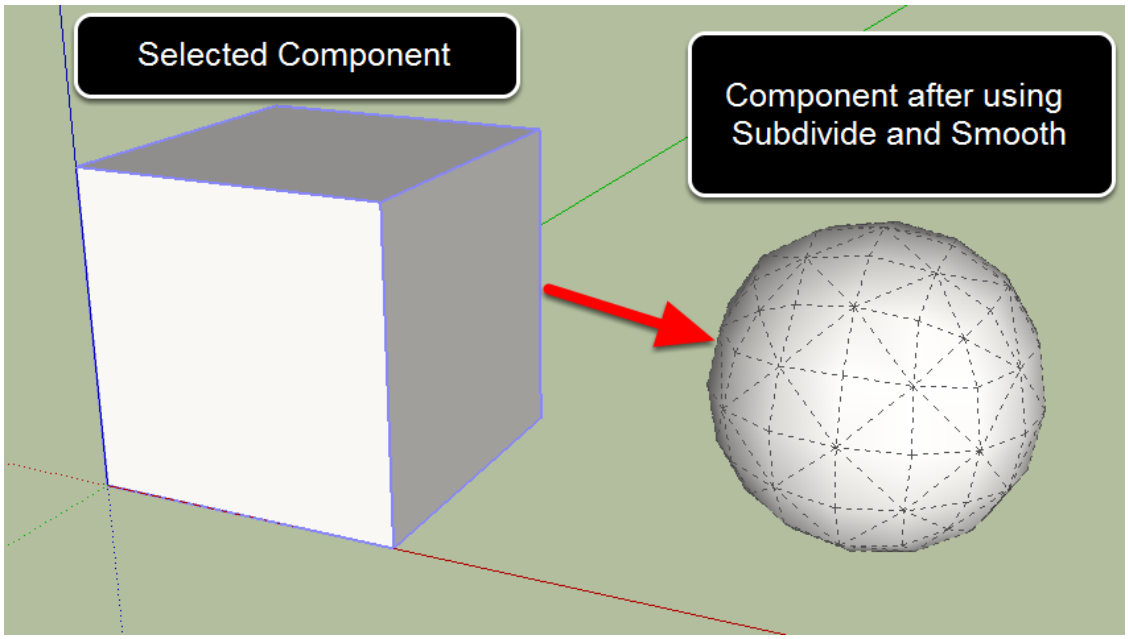
When in preview mode, enter a number between 1-4 to change the number of iterations. Here, two iterations have been chosen by typing '2 <enter>'. You can keep changing the number of iterations by entering a different value between 1-4 until you are satisfied.

Creating the Geometry



Press the <Enter> or <Return> key to create the geometry. For large models, this might take several seconds. If you want to exit the preview mode without creating the geometry, click anywhere in the viewport or press the <Escape> key.

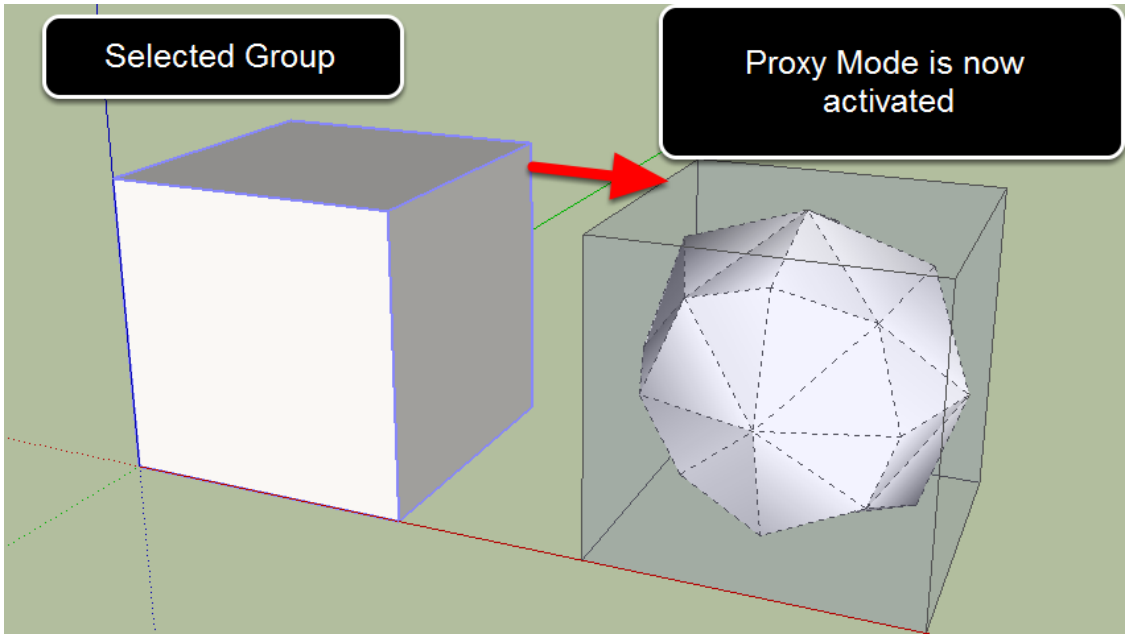
Operation on a Component



To use the tool on a SketchUp component, first select the component and then launch the tool.

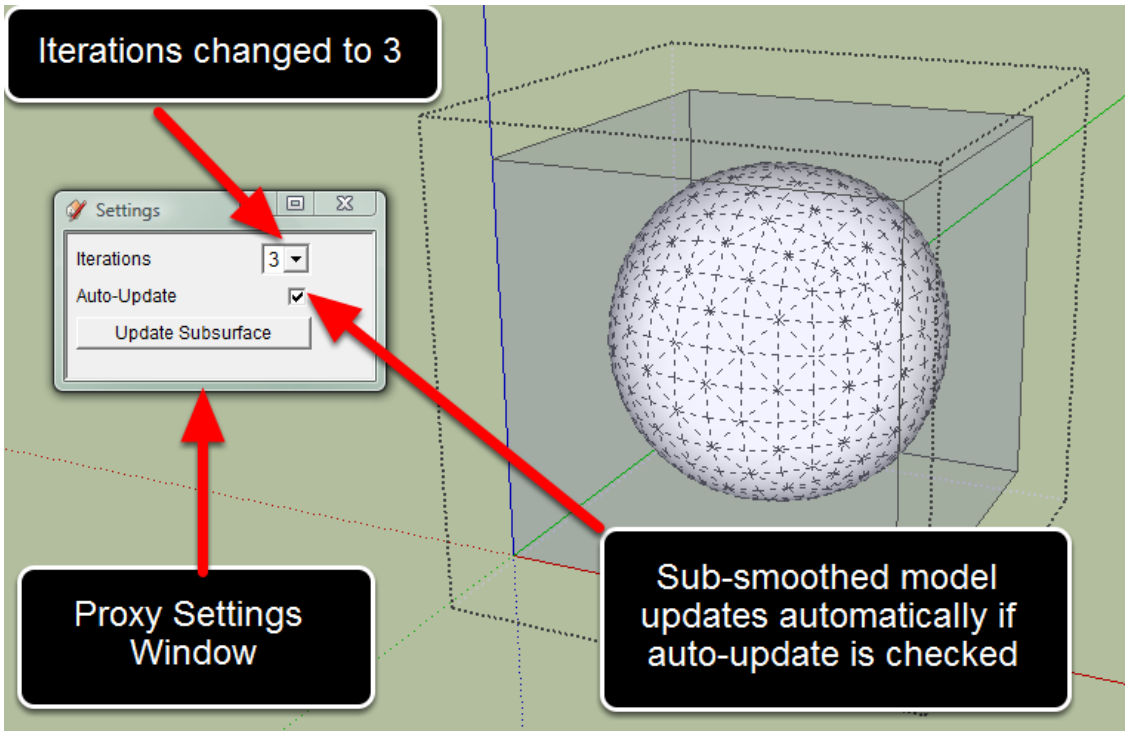
Note: Only the faces directly inside the component will be affected by using the tool. If there are nested groups or components within the selected component, they will be deleted.

Operation on a Group



By using the tool on a group, 'Proxy Mode' will become activated.

Proxy Mode



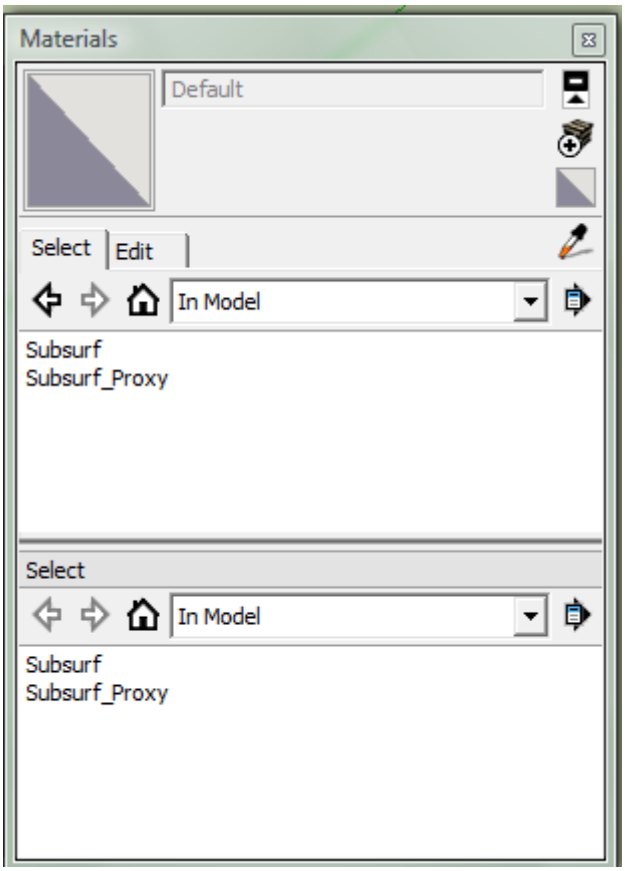
Double-click the transparent proxy to begin editing the proxy. The Proxy Settings window will open. In Proxy Mode, you can see both the proxy and the sub-smoothed model at the same time. As you make changes to the proxy, the changes will be propogated to the sub-smoothed model.

Un-check the auto-update box to turn off automatic updates.

Manual updates may be performed by clicking the 'Update Subsurface' button.

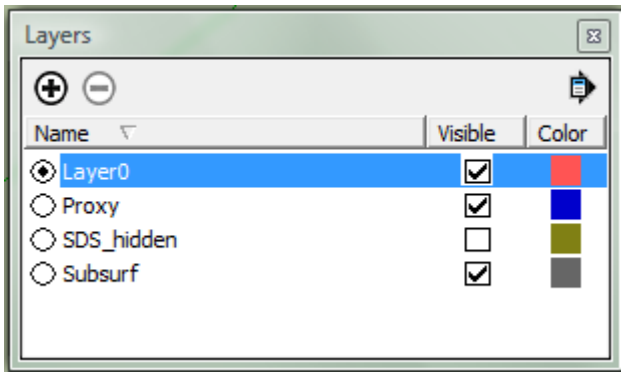
Note: If the current SketchUp face style mode is set to 'Monochrome' the proxy will not be transparent and you will be unable to see the sub-smoothed model.

Proxy Mode Materials



By using proxy mode, two new materials will be added to your SKP file. These materials may be edited if you wish to change the color and transparency settings.

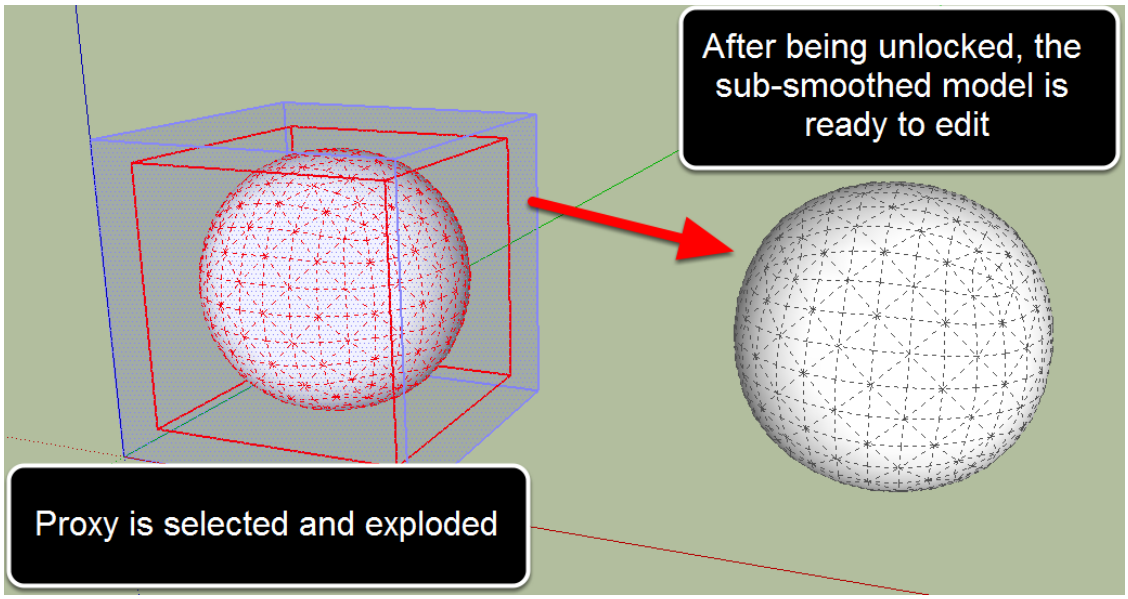
Proxy Mode Layers



By using proxy mode, two new layers will be added to your SKP file. These layers may be used to control the visibility of the proxy and the sub-smoothed model.

You may notice another layer called 'SDS_hidden'. This layer is used to temporarily hide the selected geometry when in preview mode.

Committing the Sub-Smoothed Model



If you have finished modeling in proxy mode and you wish to start directly editing the sub-smoothed model, you can commit the model by doing the following:

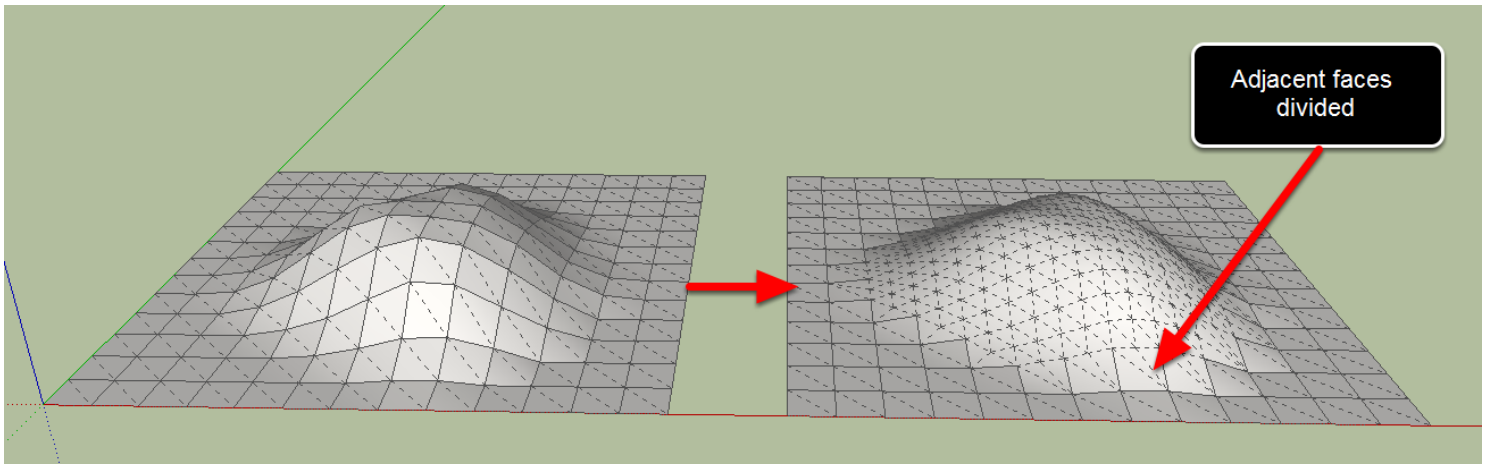
1. Select the Proxy group
2. Explode the group (right click context menu -> Explode)
3. Press the <delete> key to delete the proxy faces. **Note: Since the proxy faces are located on the 'Proxy' layer, you may wish to simply hide this layer in case you need the proxy later.**
4. Select the sub-smoothed model
5. Unlock the component (right click context menu ->Unlock)

Notes Regarding Proxy Mode

Proxy mode is a great learning tool to learn how to visualize what the sub-smoothed model will look like. However, this mode can be a bit unstable at times. Keep in mind the following tips:

- Do not use other SketchUp plugins to edit a proxy while in proxy mode. This may cause a crash or bugsplat. However, other Artisan tools can be used to edit a proxy in this mode.
- You cannot duplicate a proxy by using the move/copy tool or the copy/paste command. The copied proxy will not behave correctly.
- You can disable group proxy mode by using the 'Settings' dialog (Tools->Artisan->Settings) and changing 'Create Proxy from Group' to 'Off'

Adding Detail to a Mesh



The Subdivide and Smooth tool can be used to add refinements to your model only where you need them. Select the faces that you wish to refine and then launch the tool. Notice that the adjacent unselected faces are also divided so that the mesh remains clean.

Additional Settings

In the 'Settings' dialog:

- Subsurface Materials
- Soften Edges
- Create Proxy from Group

Subdivide and Smooth Examples

Introduction

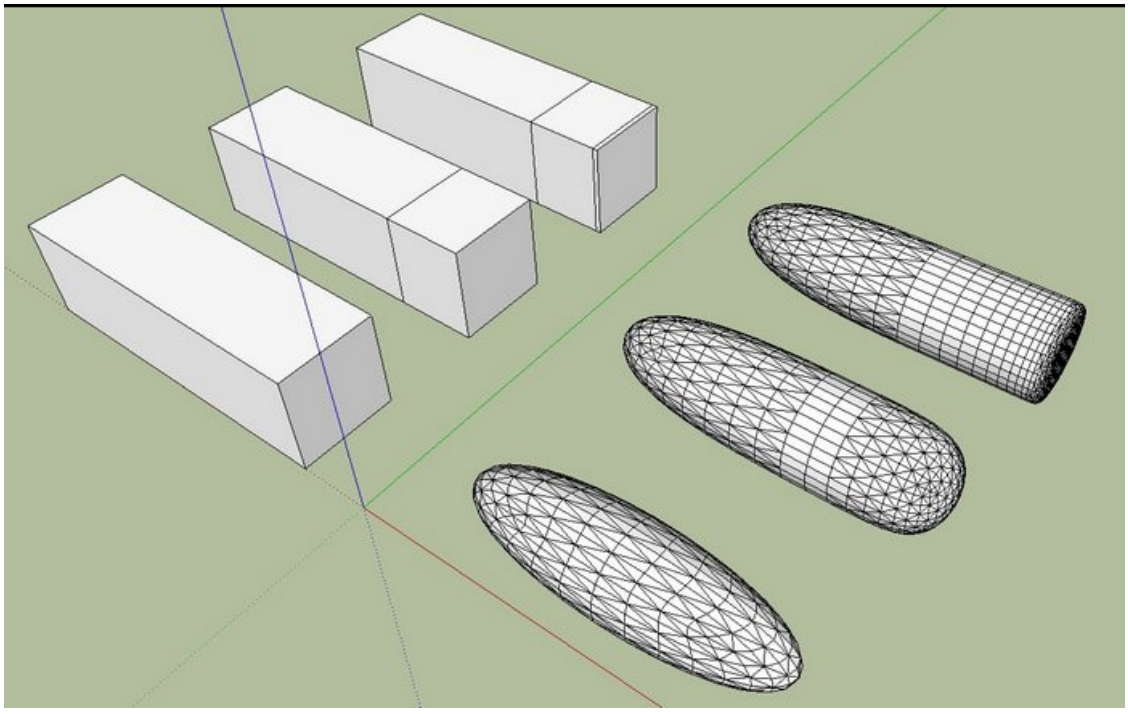
Users who are not experienced in subdivision modelling may have some initial difficulty in understanding the relationship between the proxy and the subdivided model (subsurf). This section aims to give some examples and tips on how to predict what output you will achieve by subdividing different types of geometry.

Definitions:

Proxy: (meaning 'substitute') This is the model that you actually create or draw in SketchUp, on which the Subdivide and Smooth tool will be applied. It is a rough low-poly approximation of the model you are actually trying to achieve, basically a cubic construction with no curves.

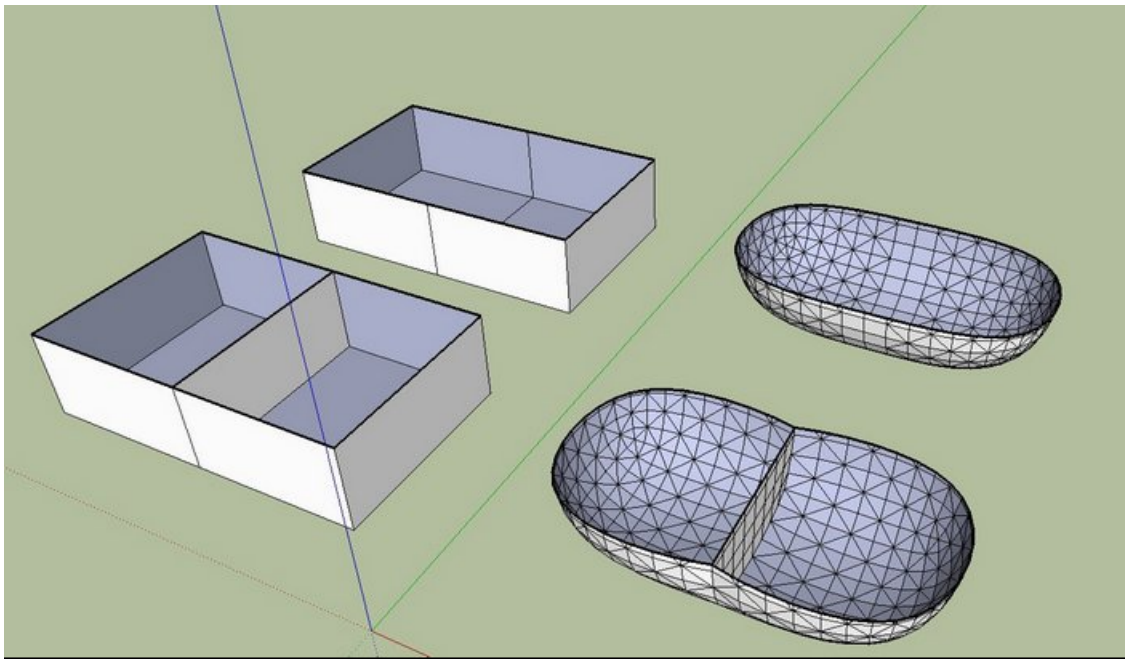
Subsurf: (subdivided surface) This is the resultant high poly organic model you obtain when the Subdivide and Smooth tool is applied.

Example 1 - Edges and Curvature



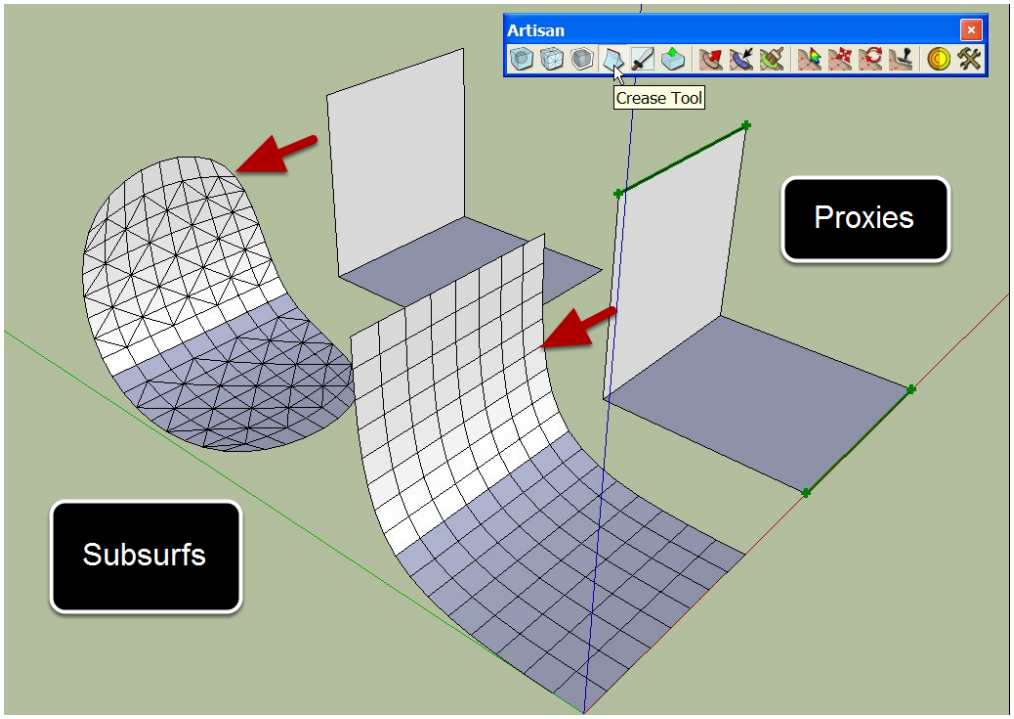
Notice how the number and location of edges in the proxy affect the curvature in the subsurf.

Example 2 - Inner Faces



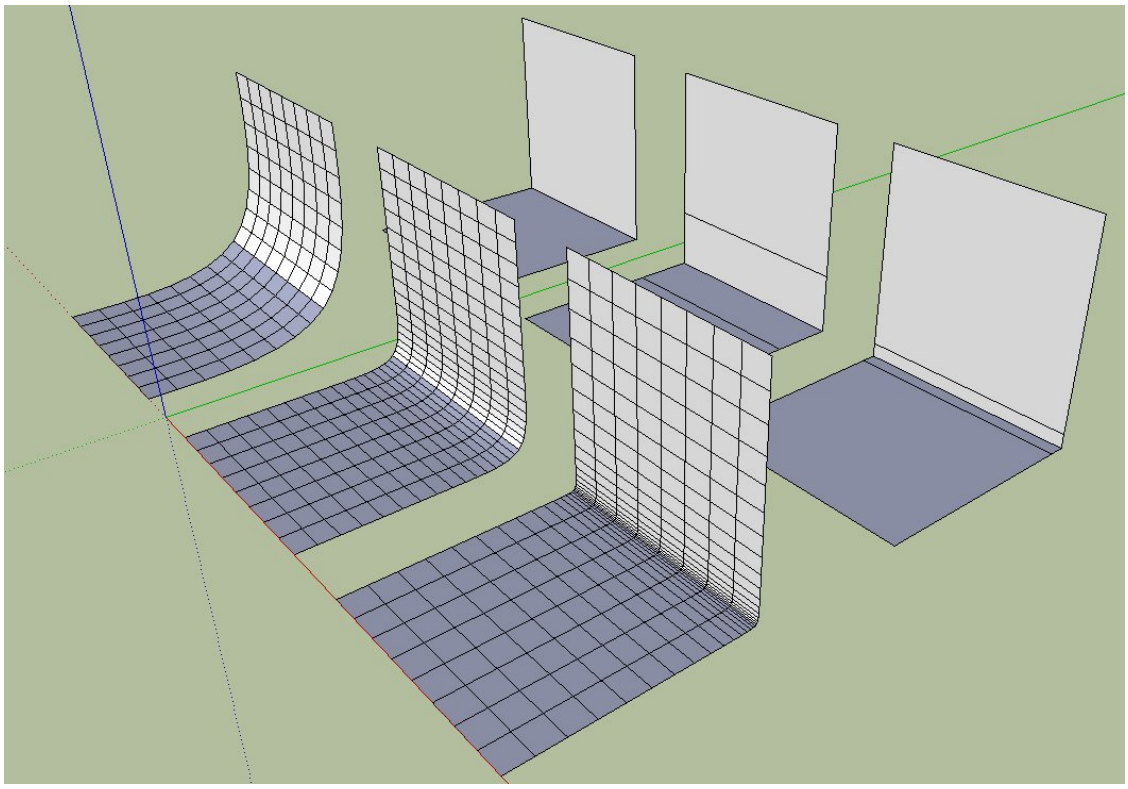
When you see unexpected 'pinching' in the subsurface, you may want to check for a hidden inner face.

Example 3 - Using the Crease Tool

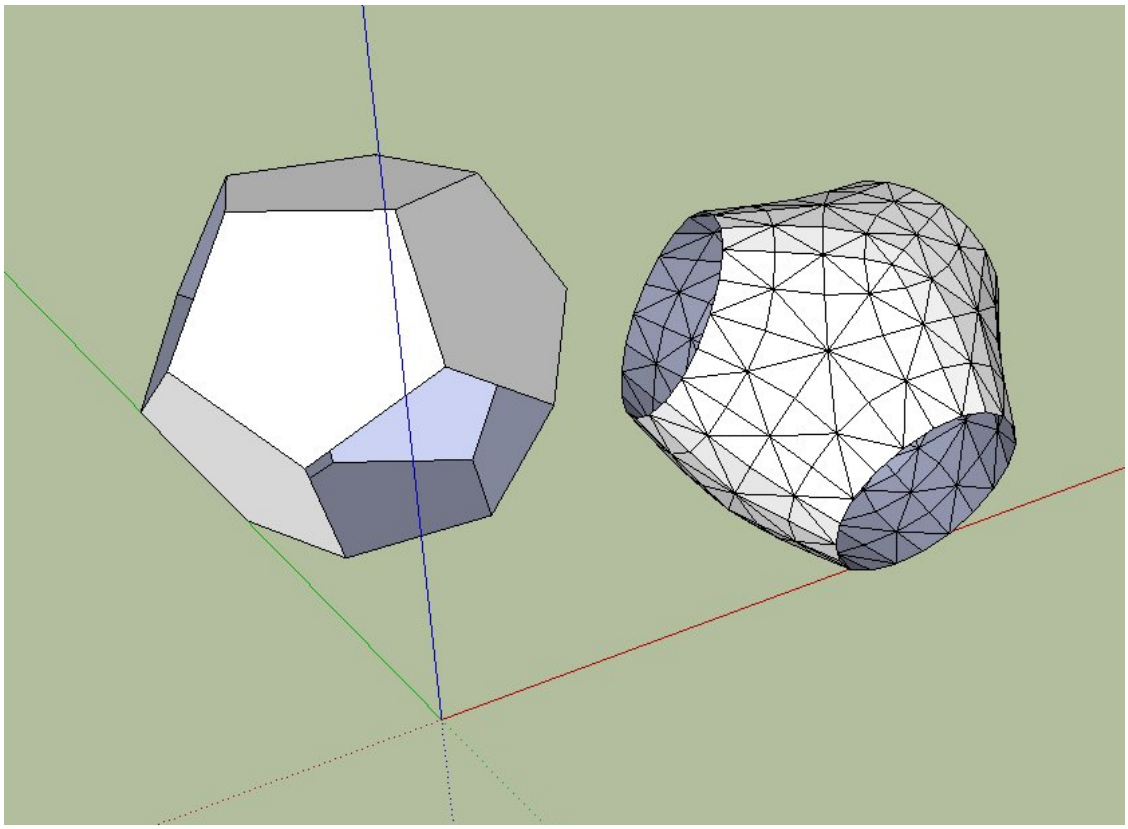


Creasing edges and vertices allows them to be locked in place. In the figure above, the green vertices and edges have been creased.

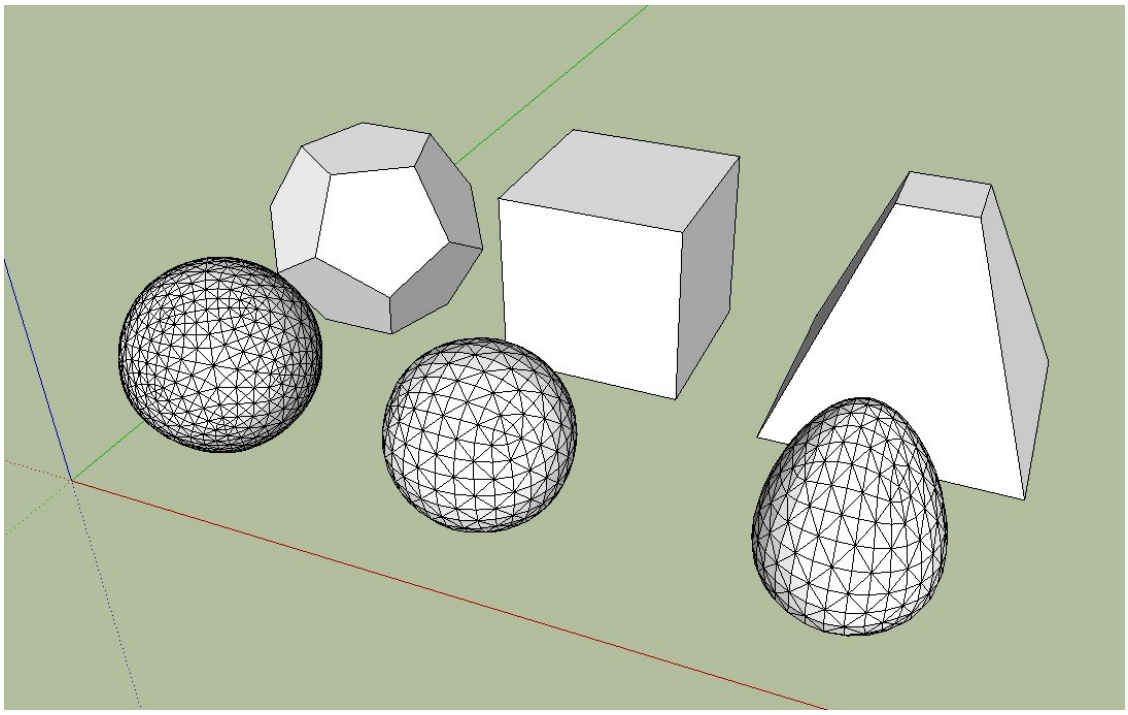
Example 4 - The Effect of Adding Edges



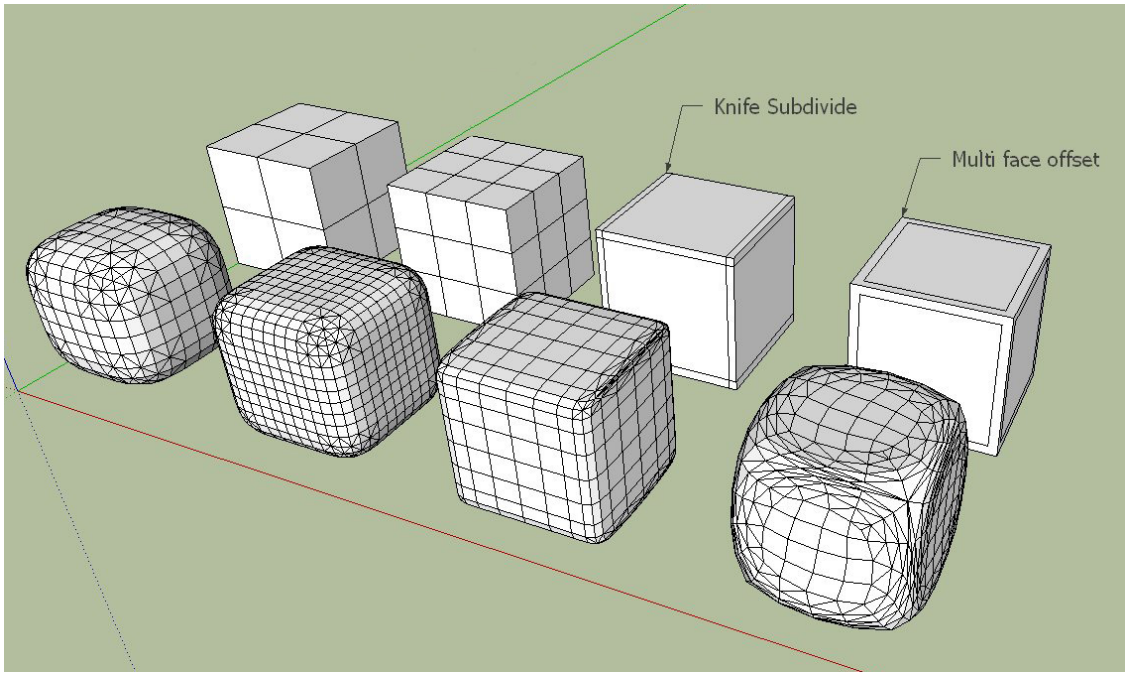
Example 5 - Holes in the Proxy



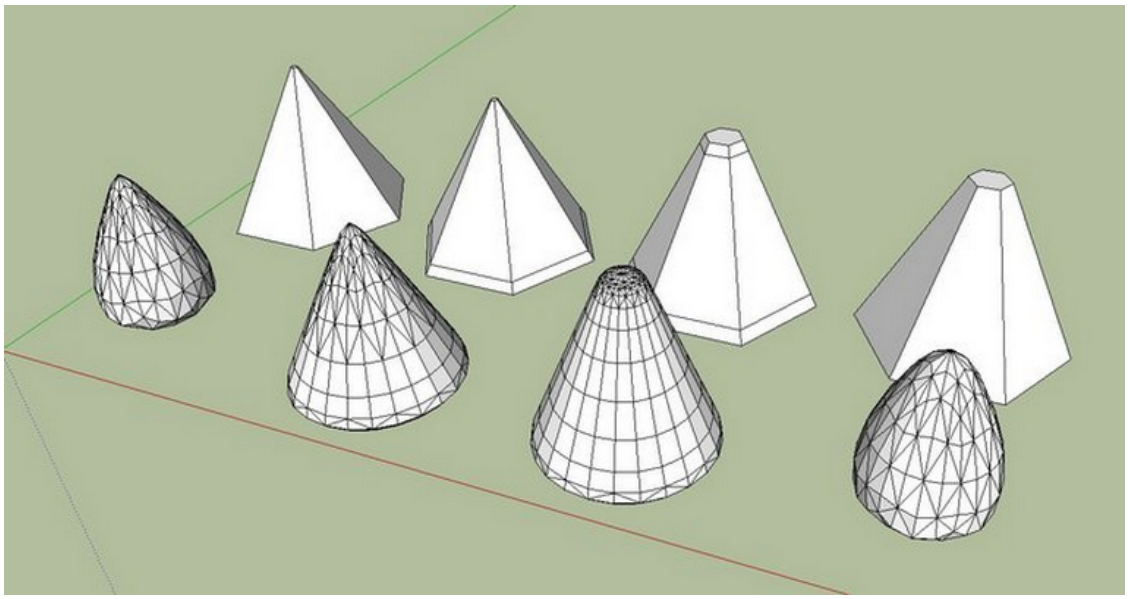
Example 6 - Subsurf Primitives



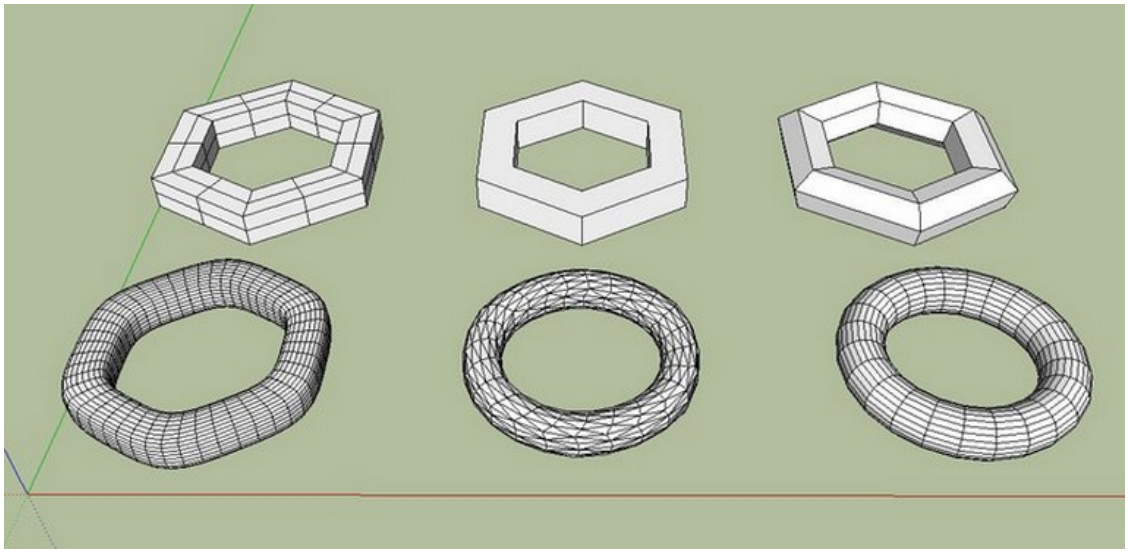
Example 7 - Cubes



Example 8 - Cones



Example 9 - Torus

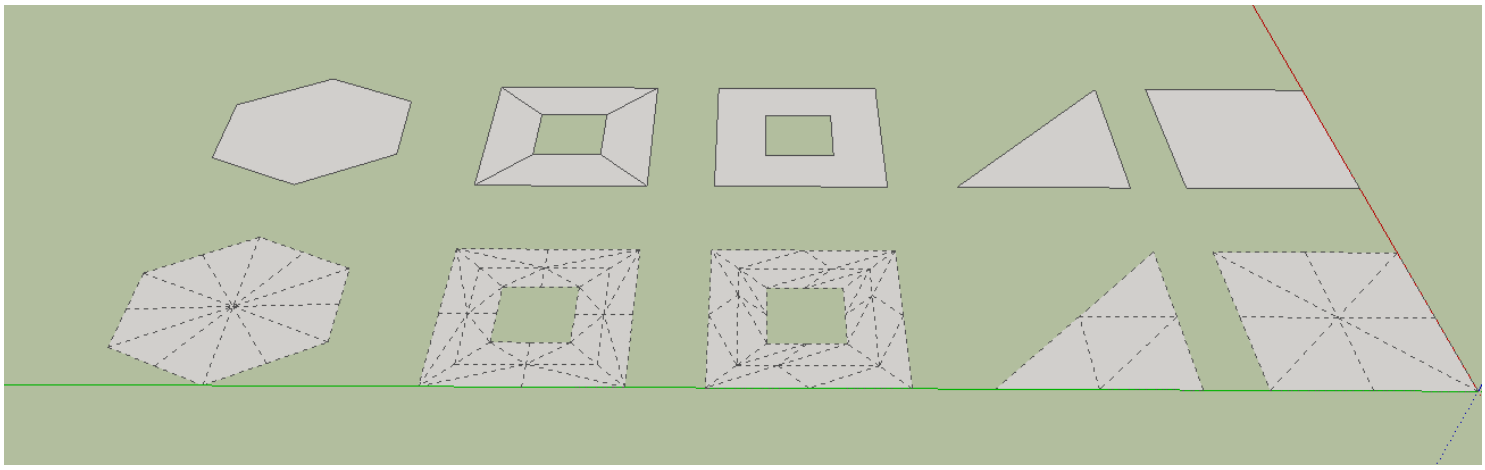


Subdivide Selection

Launching the Tool

Click the 'Subdivide Selection' icon from the Artisan toolbar or choose Tools->Artisan->Subdivide Selection from the menu.

Operation



1. Select any number of faces
2. Launch the tool
3. The selected faces will be subdivided. Adjacent faces will also be divided so that the mesh remains clean.

Note that if the faces contain holes, it is better to first divide the face into quads using the Line Tool so that the subidvision will create a nicer mesh.

Additional Settings

In the 'Settings' dialog:

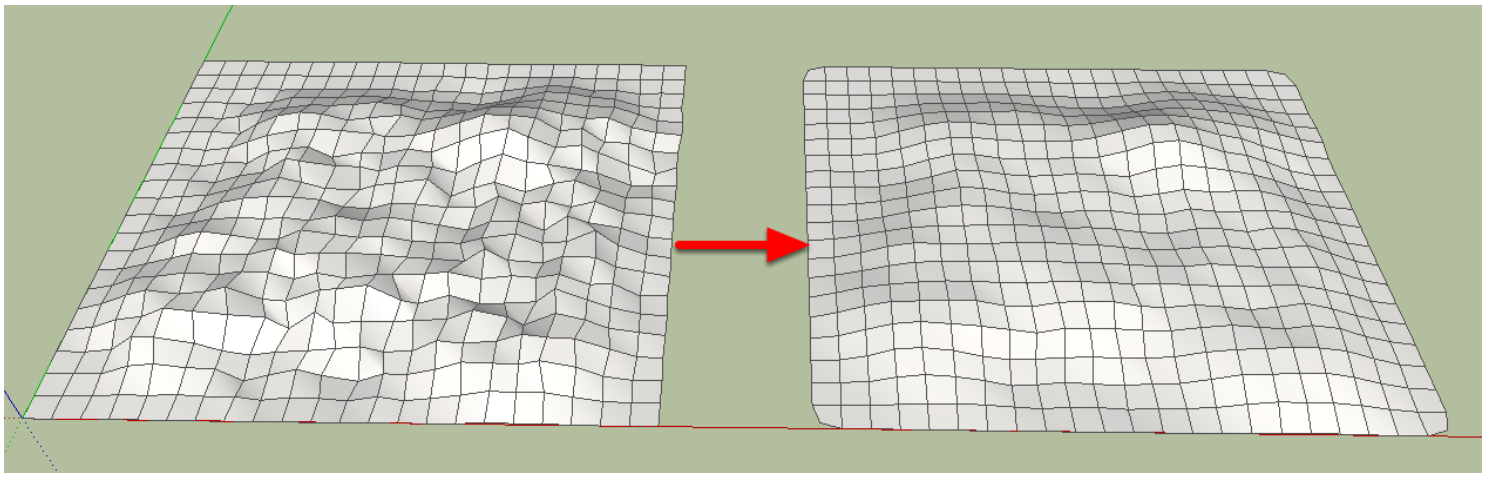
- Subsurface Materials
- Soften Edges

Smooth Selection

Launching the Tool

Select the 'Smooth Selection' tool from the Artisan toolbar or choose the Tools->Artisan->Smooth Selection menu item.

Operation



1. Select the faces for smoothing. Typically, the faces will be part of a highly subdivided mesh.
2. Launch the tool
3. The selected faces will be smoothed

Crease Tool

Introduction

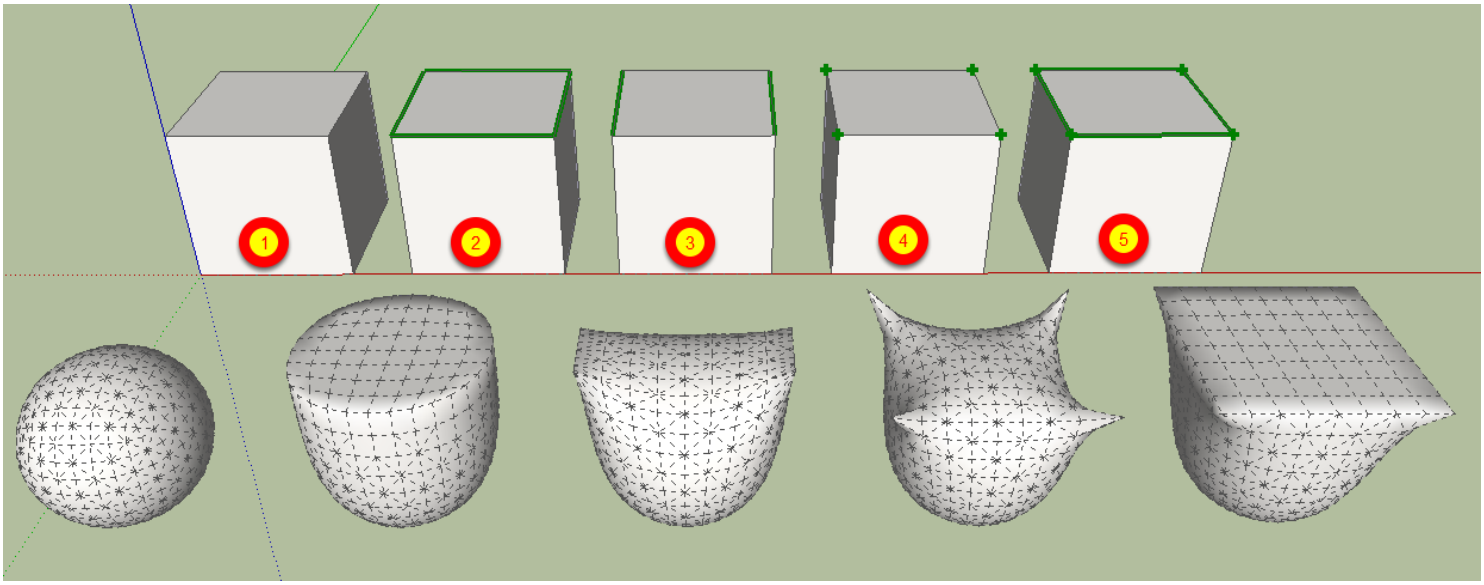
The crease tool allows you to 'mark' edges and vertices to be creased or locked. Marking the edges and vertices this way does nothing by itself. However, the behavior of OTHER tools may be affected. Tools that are affected by 'creasing' are as follows:

- Subdivide and Smooth (creates a sharp edge or locks vertices in place)
- Smooth Selection (creased edges will not be smoothed and creased vertices will be locked in place)
- Sculpt Brush (creased vertices will be locked in place)

Launching the Tool

Click the Crease Tool icon from the Artisan toolbar or choose Tools->Artisan->Crease tool from the menu.

Operation



1. Launch the tool
2. Click on an edge to crease that edge. The edge will turn green while the tool is active to indicate that the edge is creased.
3. Click on a vertex to crease that vertex. The vertex will be marked with a green cross to

indicate that the vertex is creased.

4. Click on a face to crease all edges of that face.
5. SHIFT+click to uncrease.

The figure above shows a few examples of how creasing can affect the 'Subdivde and Smooth' tool.

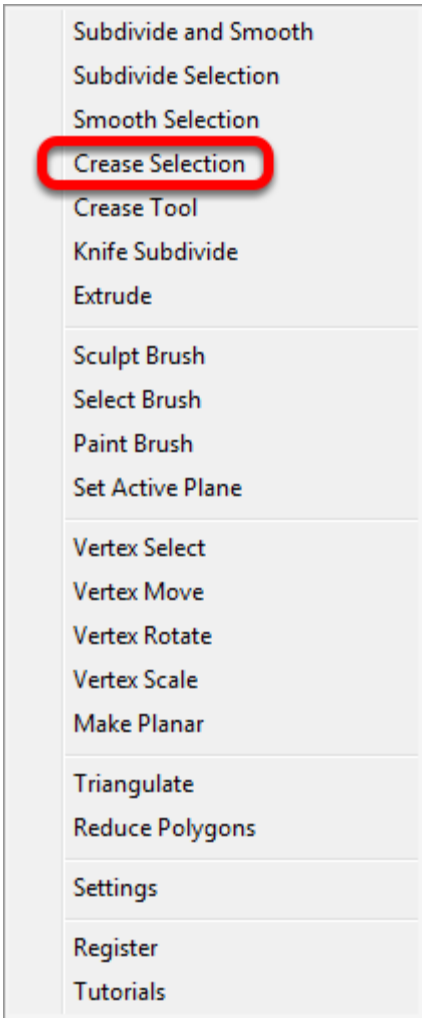
For box 1, no edges are creased.
For box 2, all edges of the top face are creased. This creates a flat top surface with rounded corners in the sub-smoothed model.
For box 3, the two opposite edges of the top face are creased. This creased a hard edge at these locations.
For box 4, the top four vertices are creased. This locks the vertices in place.
For box 5, the top four vertices and edges are creased which creates a flat surface with sharp corners

Crease Selection

Introduction

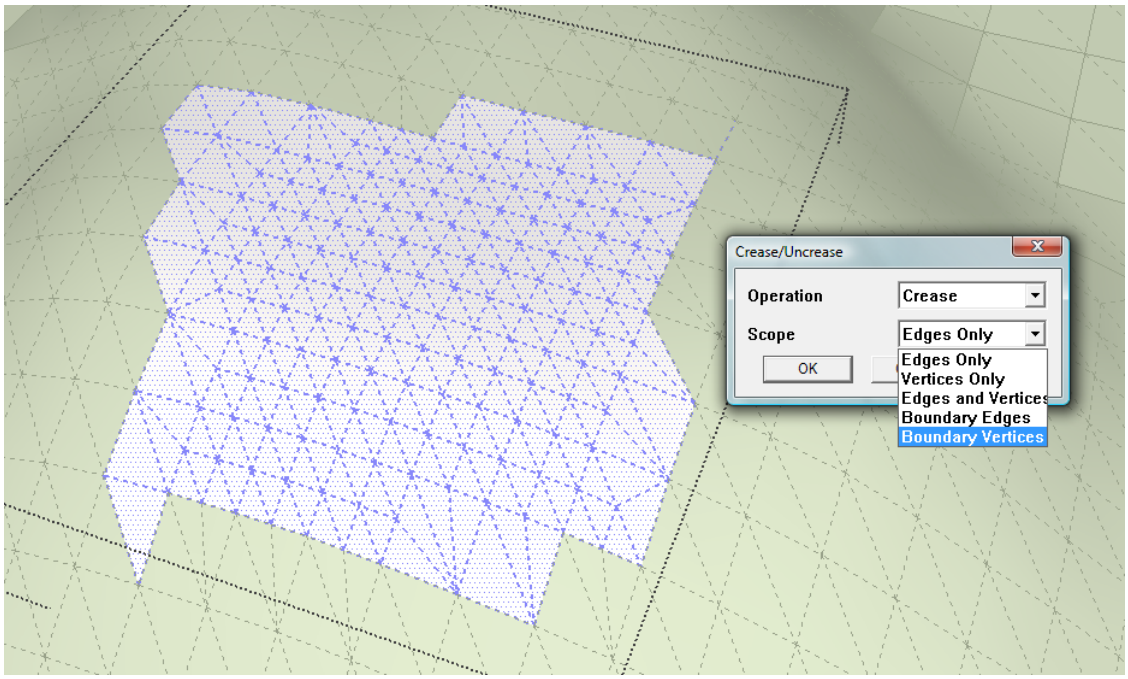
The 'Crease Selection' feature of Artisan allows you to select any number of edges and faces in your model and perform creasing in one operation. For an overview of creasing, please review the 'Crease Tool' section of this manual.

Launching the Tool



The 'Crease Selection' tool is only available from the Artisan menu. Choose Tools->Artisan->Crease Selection to launch this feature.

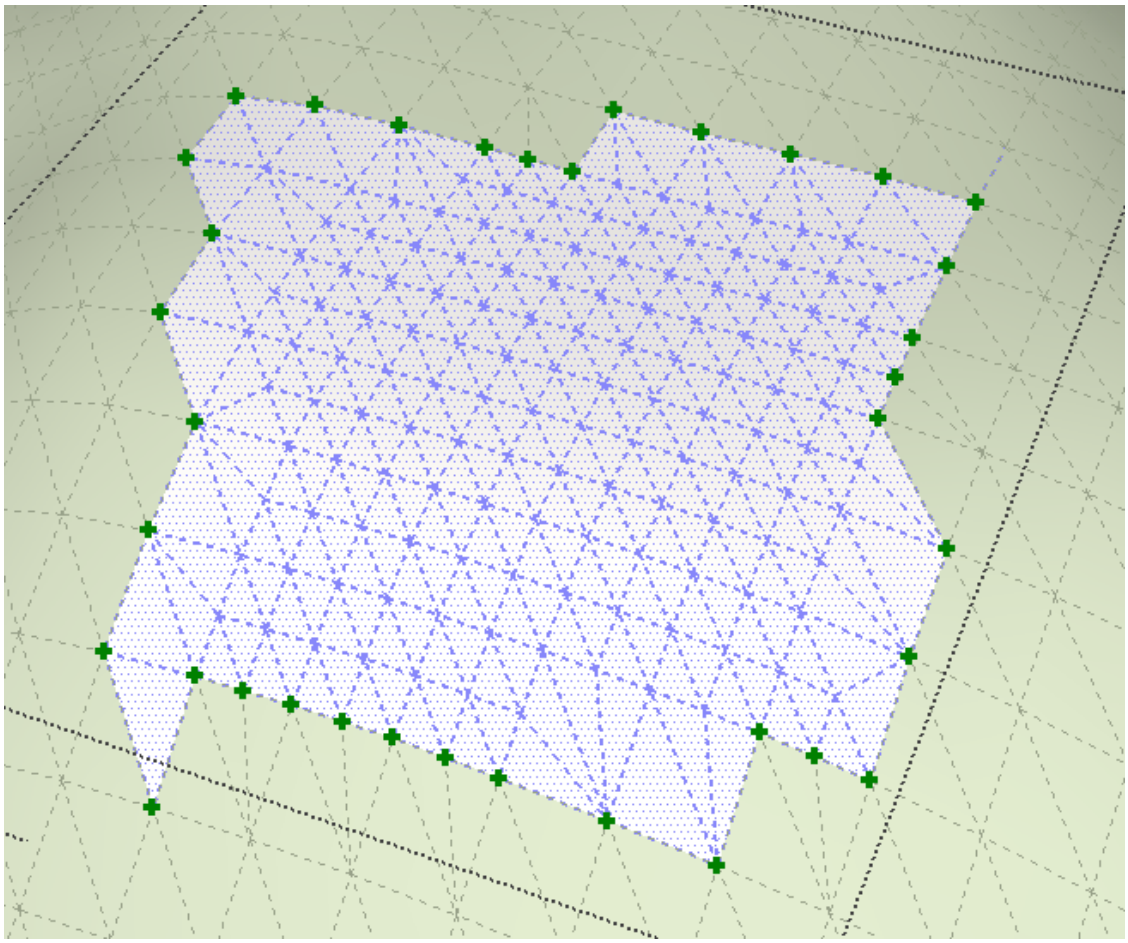
Operation



1. Select faces and edges in your model.
2. Launch the tool
3. Choose the operation (crease or uncrease)
4. Choose the scope

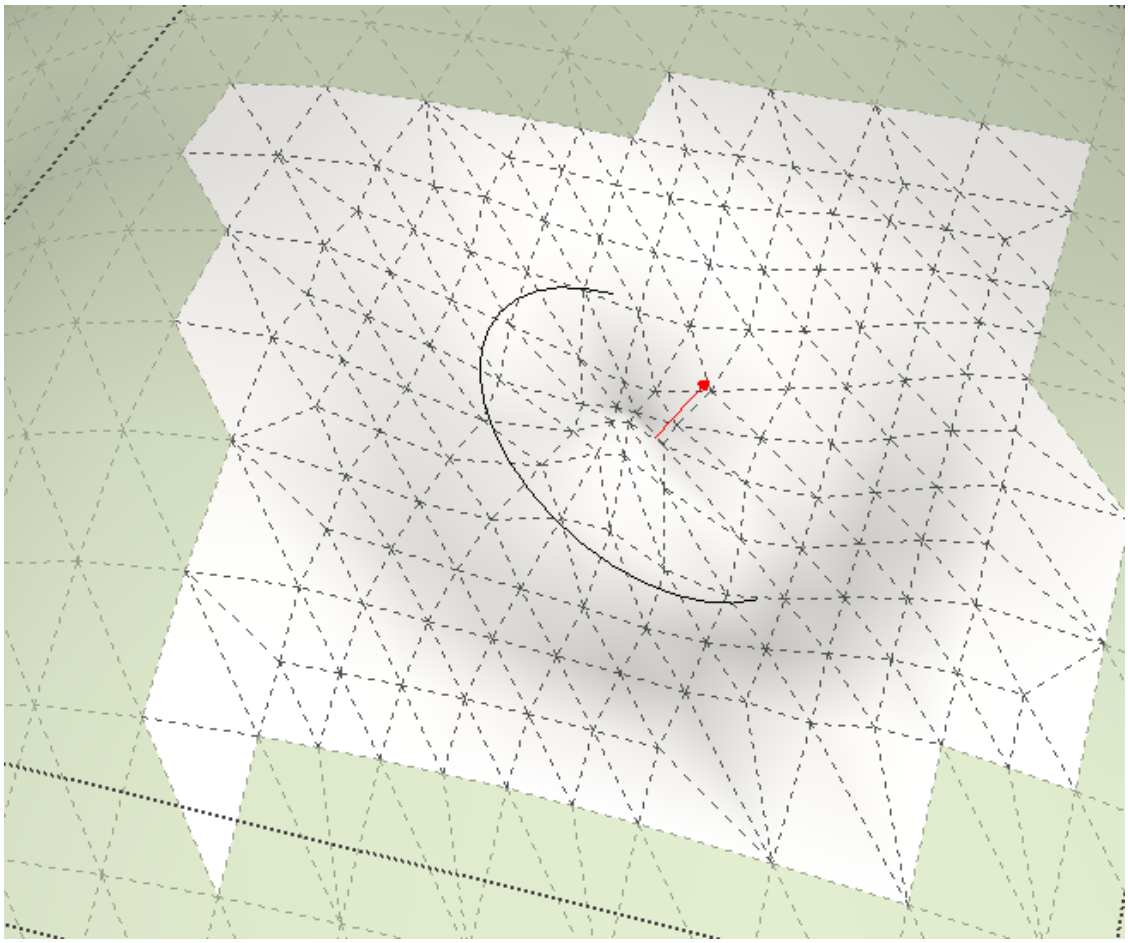
The scope allows you to filter the entities for the operation. Creasing the boundary vertices is very useful if the boundary of the mesh must remain connected to other geometry that is not in the same context (as shown in the figure above)

Creasing Boundary Vertices



By creasing the boundary vertices, the interface between the mesh and the adjacent (out of context) surface will remain continuous even when performing sculpting and smoothing operations.

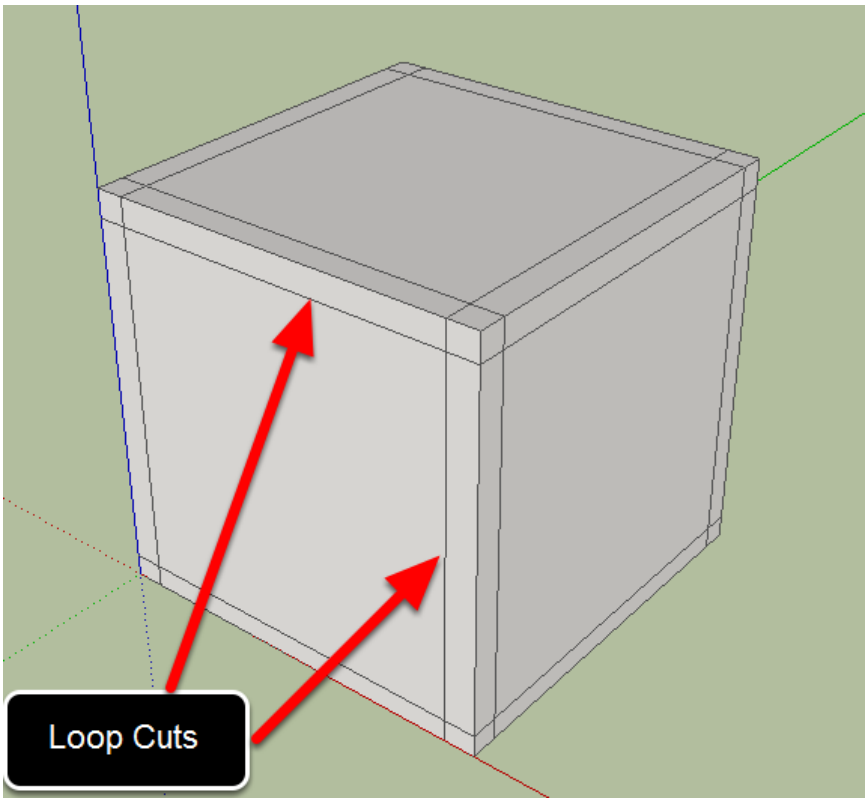
Sculpting with Creased Vertices



With the boundary vertices creased, sculpting and smoothing operations will not affect these vertices.

Knife Subdivide

Introduction

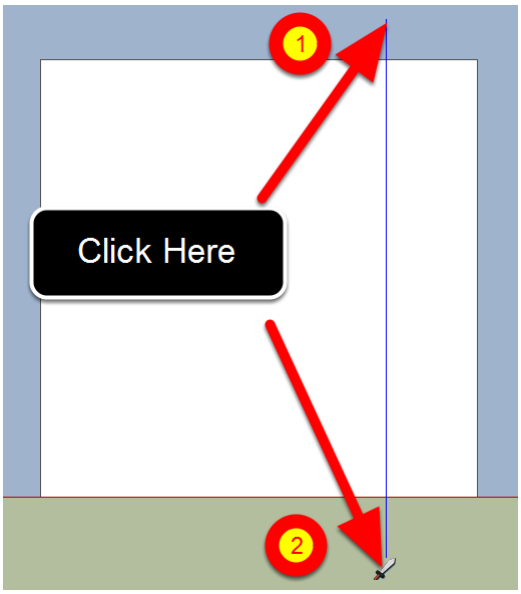


The 'Knife' tool is used to make loop cuts through a model. Loop cuts are a sequence of edges that are all on the same plane and form a continuous loop. The advantage of using loop cuts is that clean geometry is created which will give better results when using the 'Subdivide and Smooth' tool.

Launching the Tool

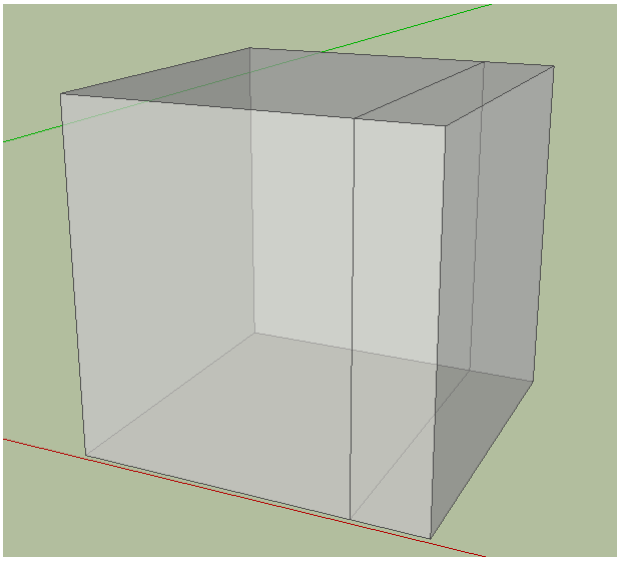
Click the 'Knife Subdivide' icon from the Artisan toolbar or choose Tools->Artisan->Knife Subdivide from the menu.

Operation



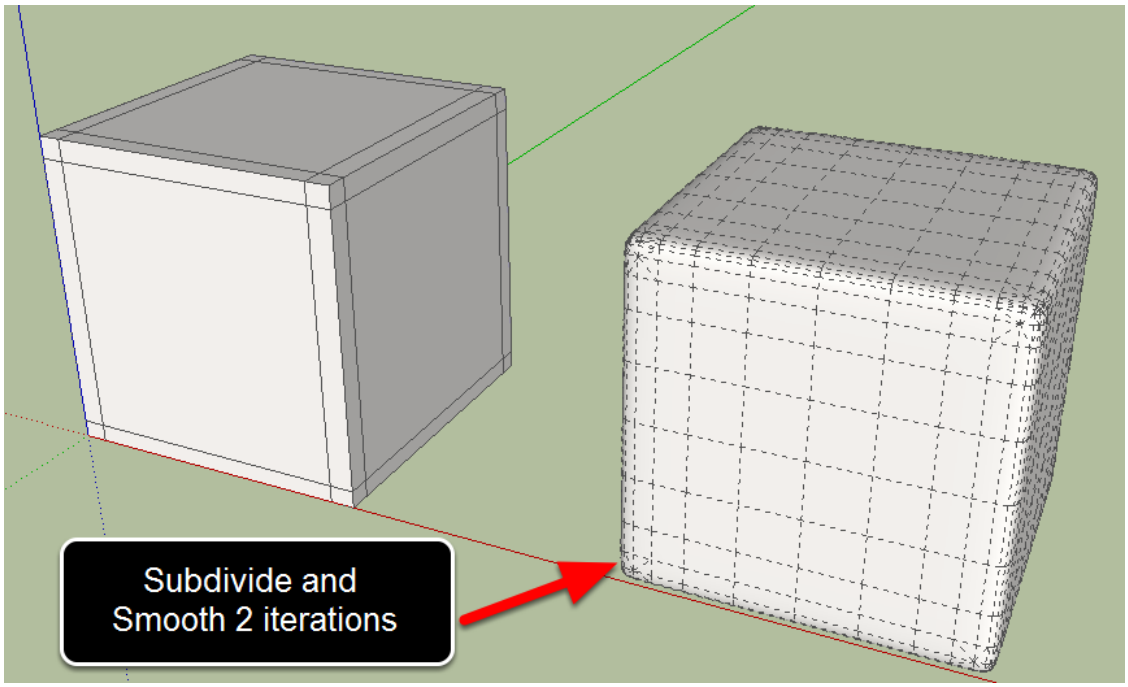
1. Set your SketchUp camera to parallel projection. Otherwise, you might get unexpected results.
2. Draw a 'cut-line' as shown starting and ending outside of the model.

The Completed Cut



After completing the cut, examine the model to see the result.

Using Loop Cuts Effectively



Loop cuts are usually used in the early stages of subdivision modeling. The idea is to create loops and edges in areas where more detail will be required. Here, by using loop cuts, a rounded cube can be easily created.

Extrude Tool

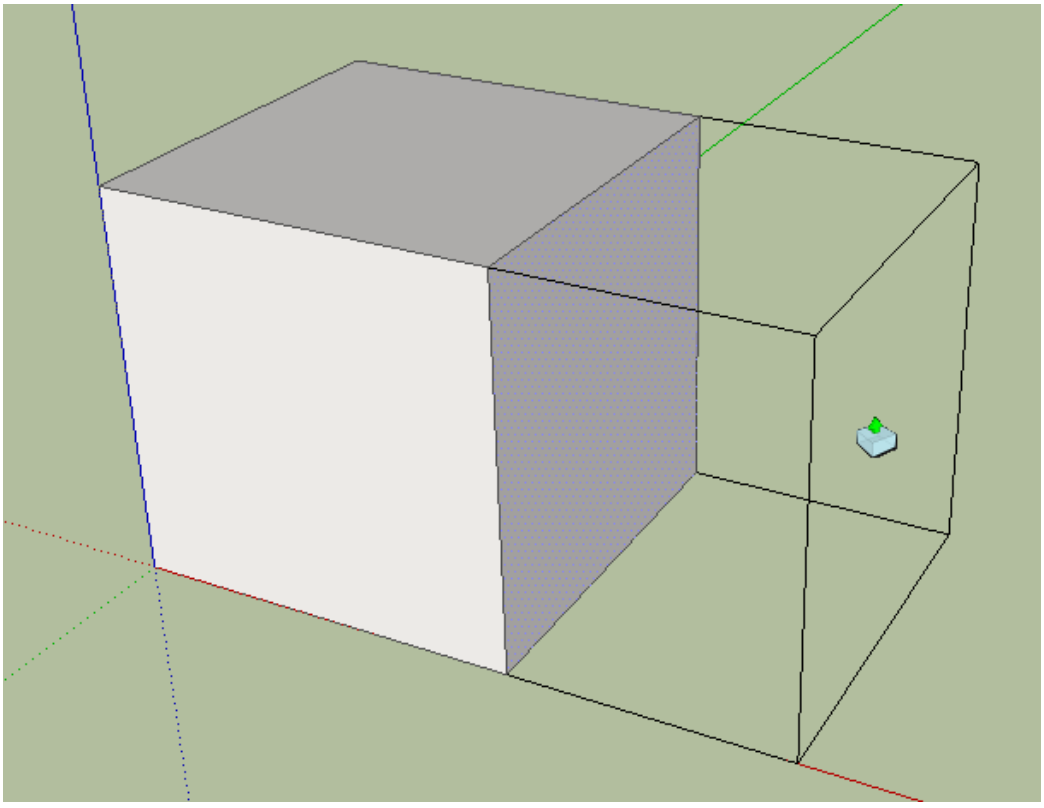
Introduction

The 'Extrude Tool' is a tool to help create clean geometry in the early stages of the modeling process. It is much like the Push/Pull tool except that it will create a loop of edges at the start of the operation. **The advantage of the extrude tool is that it will not create interior faces like the Push/Pull tool does.**

Launching the Tool

Click the Extrude Tool icon from the Artisan toolbar or choose Tools->Artisan->Extrude from the menu

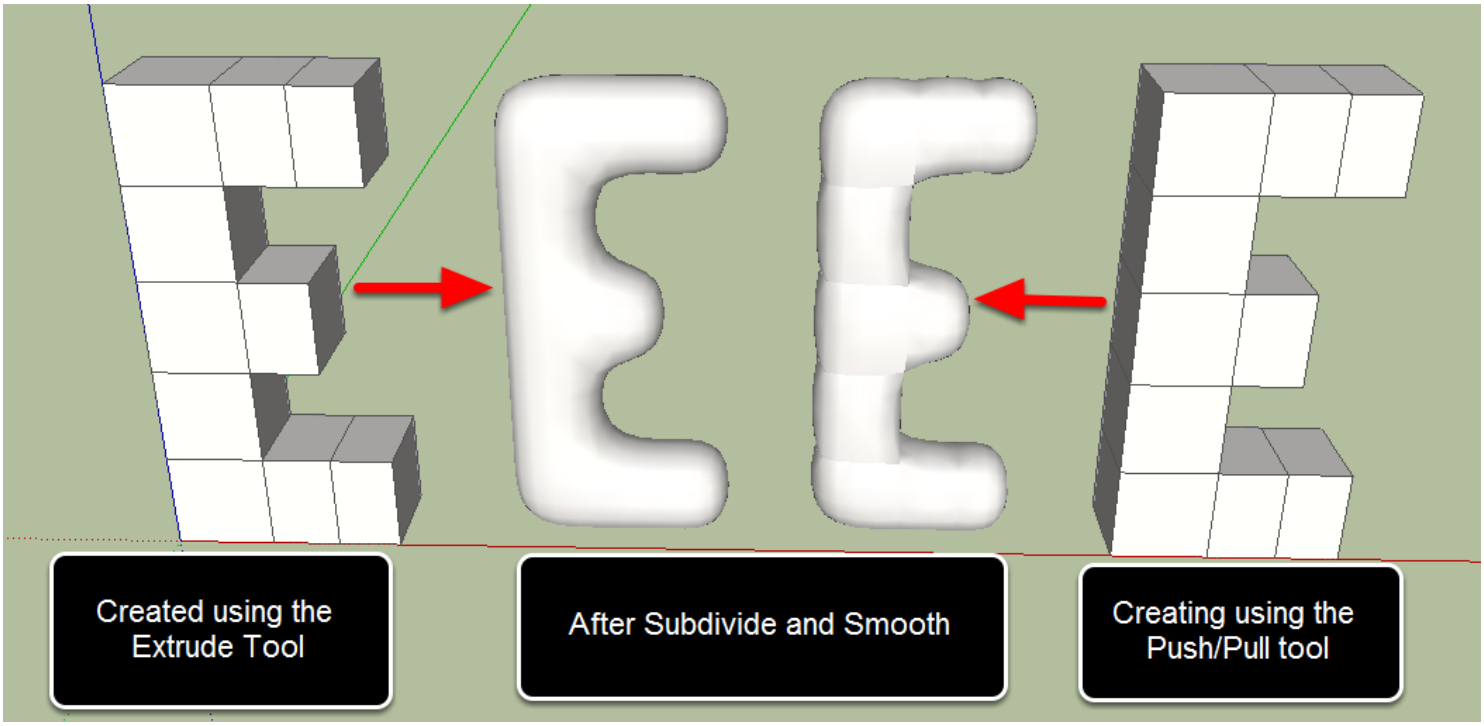
Operation



1. Launch the tool
2. Click a face in the model
3. Move the mouse away from the face to begin extruding

4. Click again to complete the extrusion
5. Click-dragging can also be used
6. By keying-in a measurement after the first click, you can extrude the face a precise distance.

Extrude vs Push/Pull



When using the Push/Pull tool and pressing CTRL to toggle the creation of a new face, this new internal face results in messy non-manifold geometry that gives a poor result when using the Subdivide and Smooth tool.

Note: The extrude tool only works to Pull faces outwards. It cannot be used to Push a face inward.

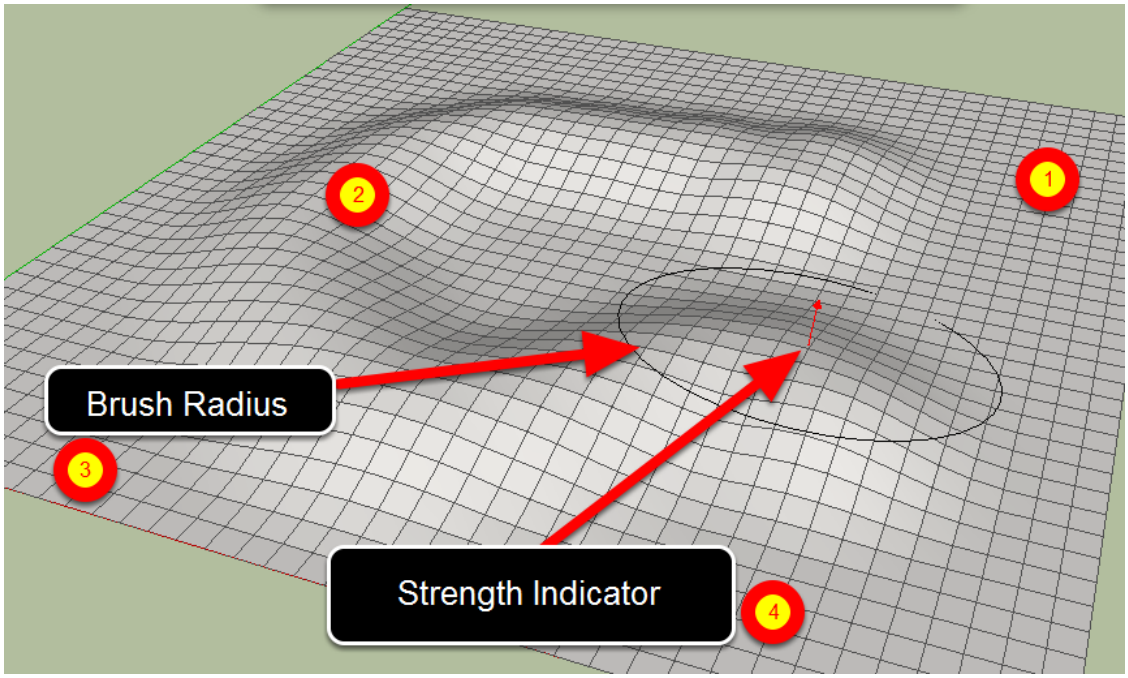
Sculpt Brush

Sculpt Brush

Launching the Tool

Click the Sculpt Brush icon from the toolbar (or choose Tools->Artisan->Sculpt Brush from the menu) to launch the tool.

Operation



1. Ensure that you are in the proper editing context for the geometry you wish to sculpt. You cannot sculpt across the boundaries of groups and components.

2. Click and Drag across a highly subdivided mesh.

3. The Brush Radius determines the area that is influenced by the sculpting operation. There are several ways to adjust the radius:

- Keying-in a measurement such as '10m'.
- Tapping the left or right arrow keys (left to decrease, right to increase)
- Holding the left or right arrow key down while dragging the mouse up or down

4. The Strength determines the amount of displacement and can also indicate the direction. If the arrow points away from the mesh, the displacement is 'normal'. If it points towards the mesh, the displacement direction is reversed. In the 'Sculpt' mode, the strength indicates the maximum amount of displacement but in other modes, it simply gives a visual cue for the strength and direction of the deformation. There are several ways to adjust to the strength:

- Keying-in a measurement followed by the letter 's'. For example, keying in '10ms' will set the strength to 10 meters.
- Tapping the up or down arrow keys (down to decrease, up to increase)
- Holding the up or down arrow key while dragging the mouse up or down
- Press the up and down arrow keys at the same time to reverse the displacement direction while keeping the same absolute strength value

5. Press the TAB key to cycle through the different sculpting modes (Sculpt, Smooth, Pinch, Inflate, and Flatten).

6. The current sculpt mode can also be changed using the right-click context menu.

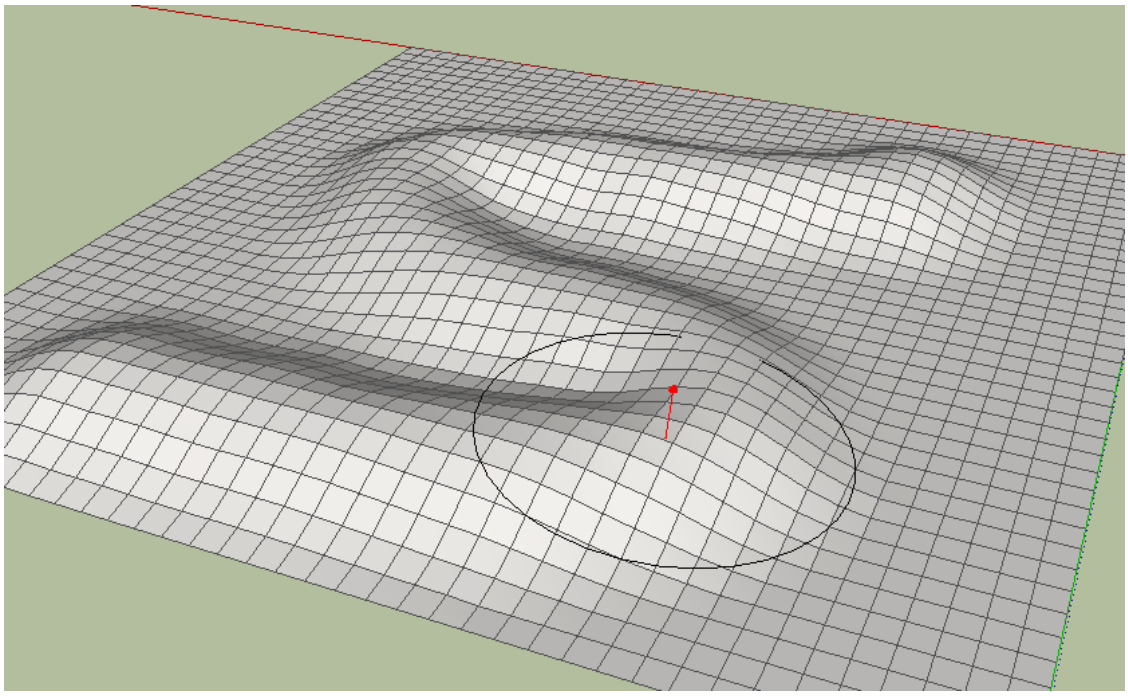
7. If you have pre-selected any edges or faces prior to activating the sculpt brush, a 'sculpt mask' will be created. The sculpting operation will only affect the selected edges and faces. Press 'Escape' to clear the sculpt mask.

Additional Settings

In the 'Settings' dialog:

- Soft Falloff Mode
- Brush Mirror Plane
- Sculpt Planar Lock
- Auto-smooth Sculpt

Sculpt Mode

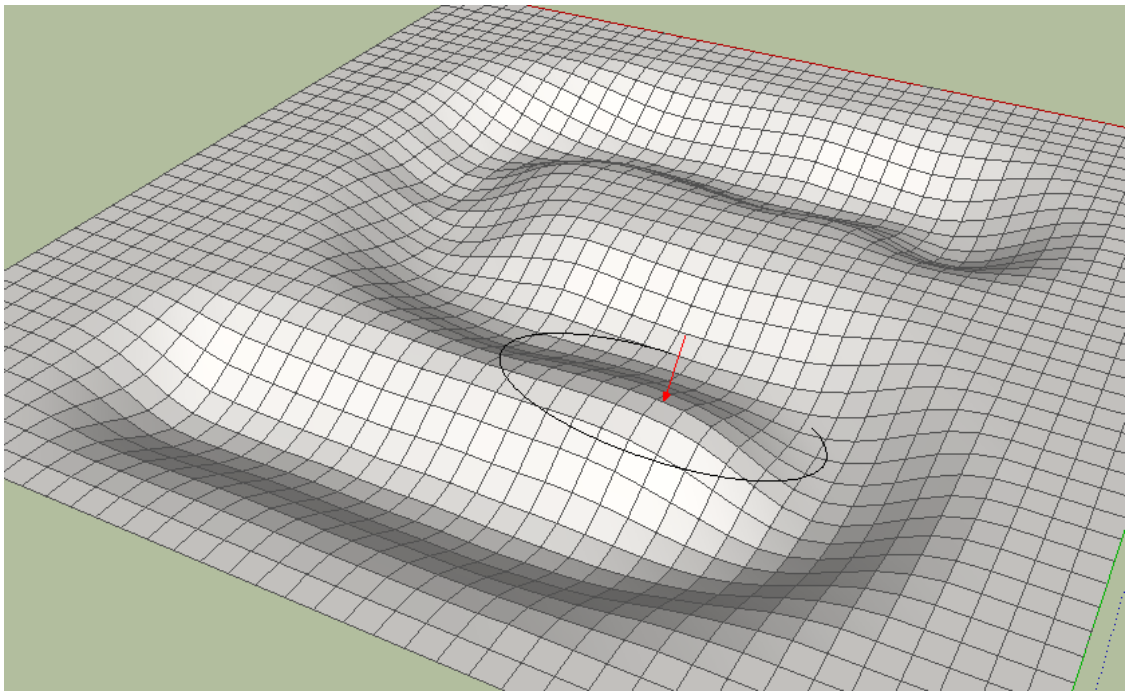


Sculpt mode is used to perform basic sculpting operations. By default, the mesh will be displaced in the direction of the 'average normal' of the vertices that fall within the brush radius.

By holding the SHIFT key, the mesh will be displaced in the vertical direction only.

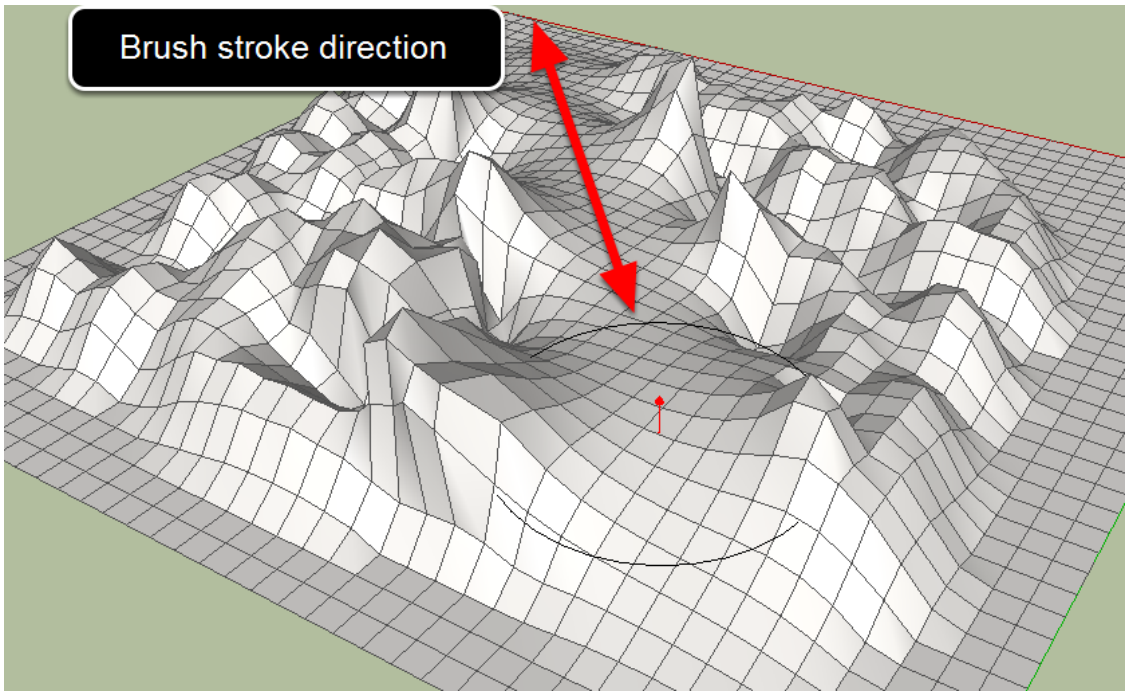
It is recommended to use a relatively small strength value (10%-20% of the radius value) and gradually deform the mesh through successive brush strokes. This will provide smooth deformation and greater control.

Reverse Sculpting



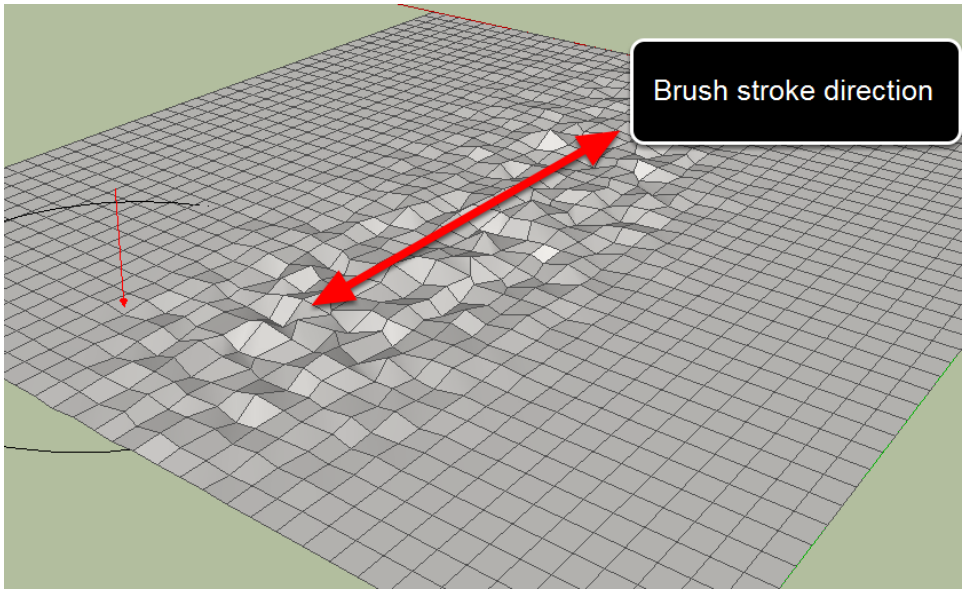
Anegative strength value (strength indicator points towards the mesh) will result in the mesh being deformed in the opposite direction.

Smooth Mode



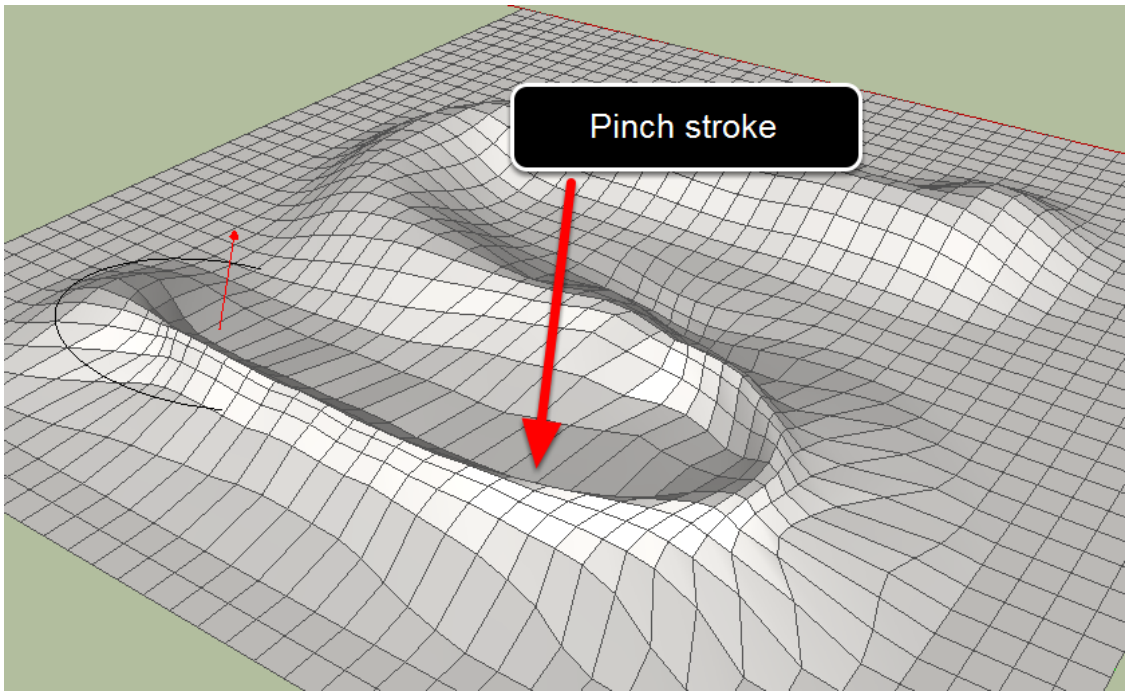
Smooth mode is used to smooth out a mesh. Brush strokes will tend to pull the vertices towards the average position of the adjacent faces.

Reverse Smoothing



A negative strength value (strength indicator points towards the mesh) will result in the mesh being displaced randomly, adding jitter to the vertices.

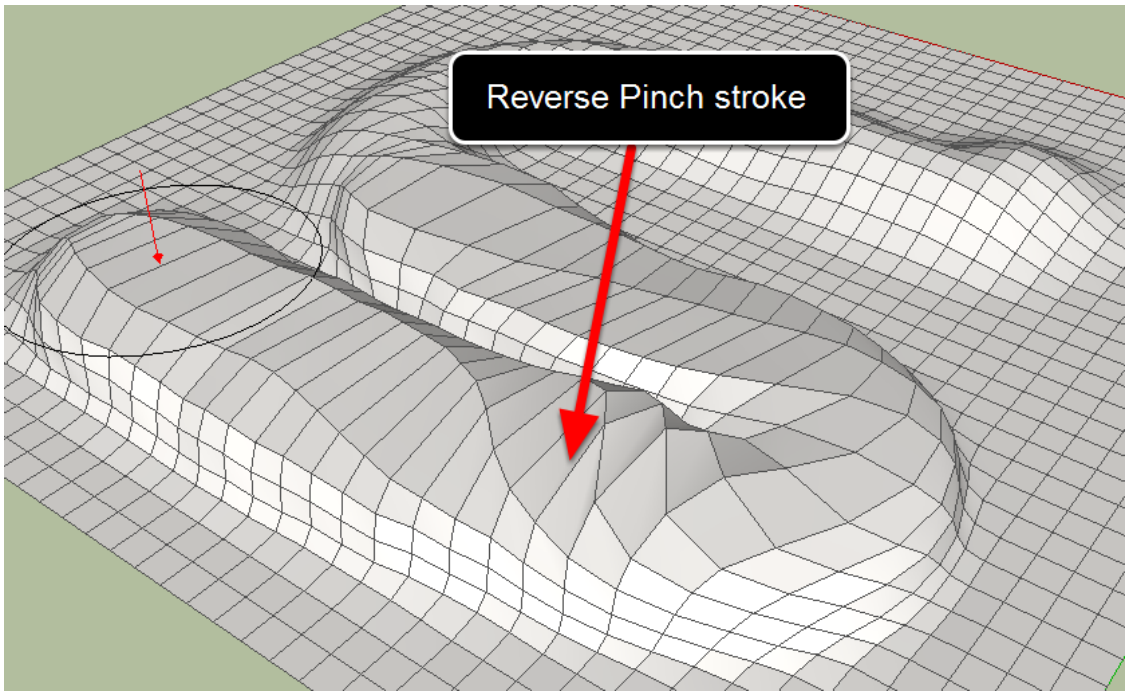
Pinch Mode



Pinch mode can be used to add creases to the mesh. Brush strokes will pull the vertices towards the center of the brush.

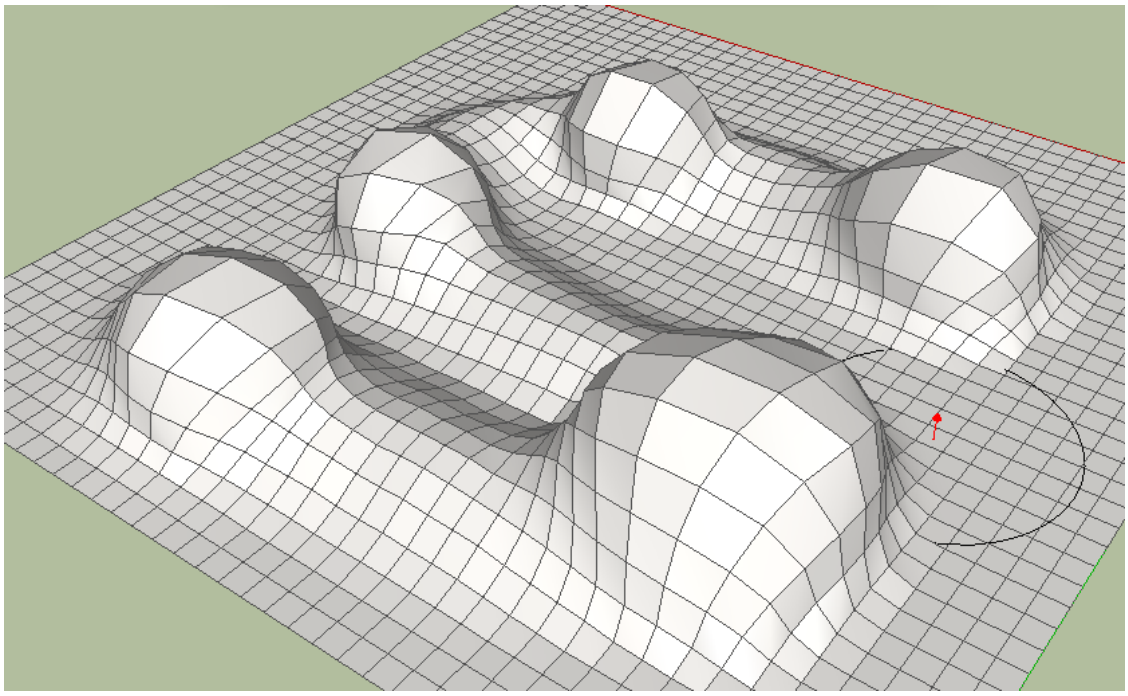
This mode is most effective on areas of the mesh that have first been deformed using the basic sculpt mode.

Reverse Pinching



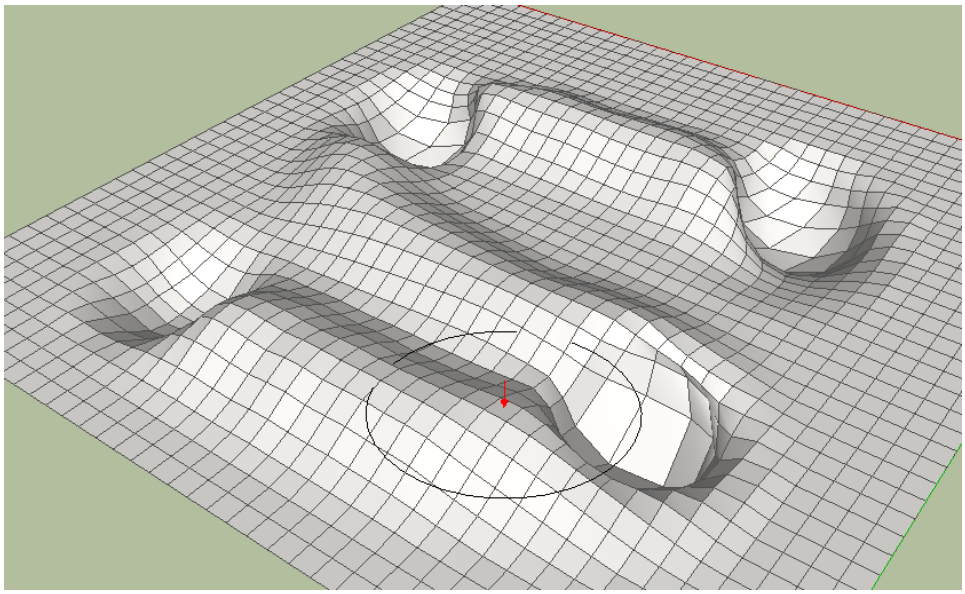
A negative strength value (strength indicator points towards the mesh) will spread the vertices away from the center of the brush.

Inflate Mode



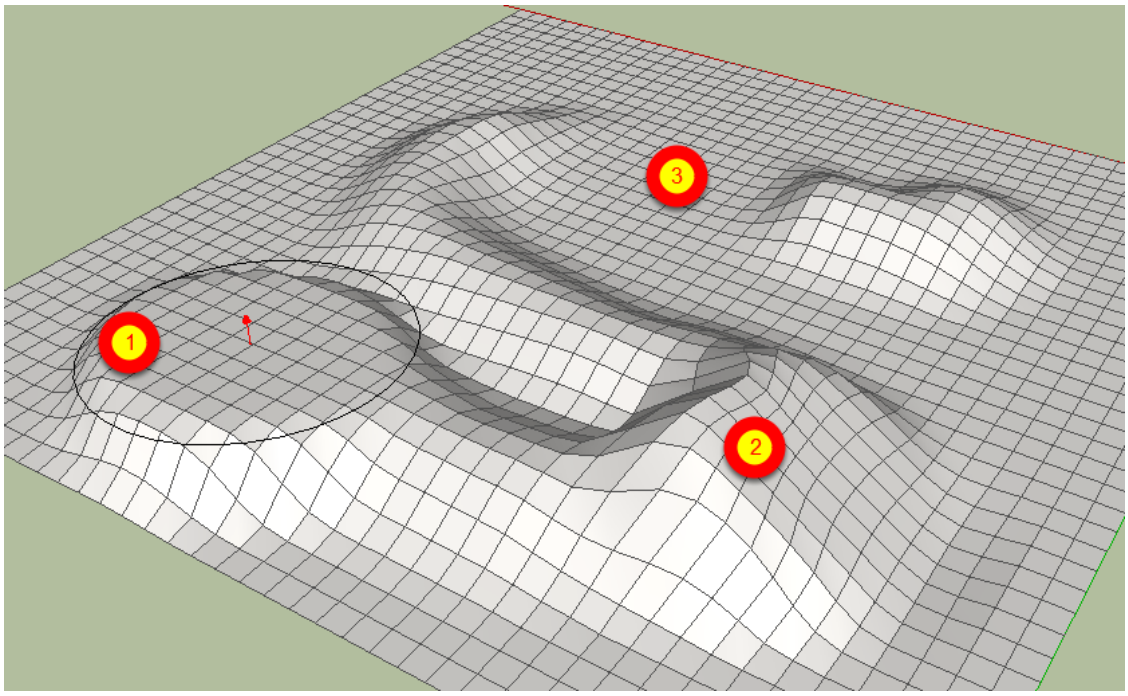
The Inflate mode can be used to 'inflate' the mesh much like inflating a balloon. Vertices are displaced in the direction of their individual normals.

Reverse Inflate



A negative strength value (strength indicator points towards the mesh) will collapse the vertices such that they are displaced in the opposite direction of their individual normals.

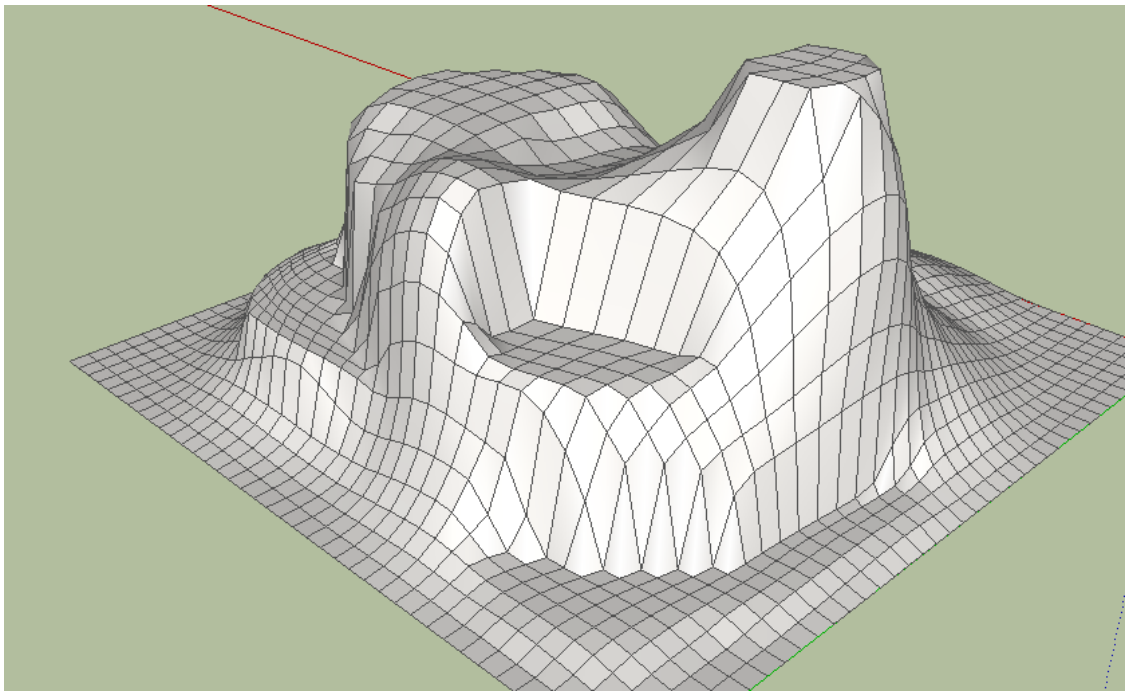
Flatten Mode



Flatten Mode flattens vertices to a common plane. **The flatten plane is set by the first face that is clicked on at the start of a brush stroke.**

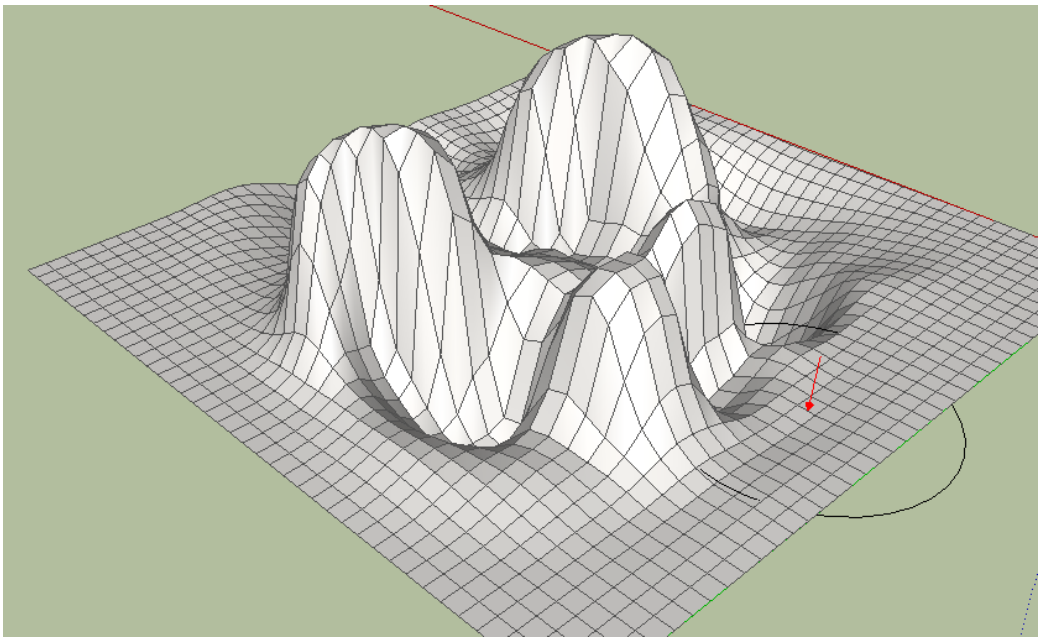
1. Area is flattened by performing brush strokes starting from a semi-horizontal face at a raised height.
2. Area is flattened by performing brush strokes starting from a sloping face.
3. Area is flattened by performing brush strokes starting from a horizontal face at ground level.

Horizontal Flattening



By holding SHIFT as you perform the brush stroke, the flattening wil be constrained to a horizontal plane at the height of the first face that was clicked.

Reverse Flatten



A negative strength value (strength indicator points towards the mesh) will displace the vertices away from the plane of the first face that was clicked on at the start of the stroke. This operation has limited practical use. It tends to produce sharp peaks and deep valleys which

could be suitable for sculpting a rocky mountain range

Select Brush

Select Brush

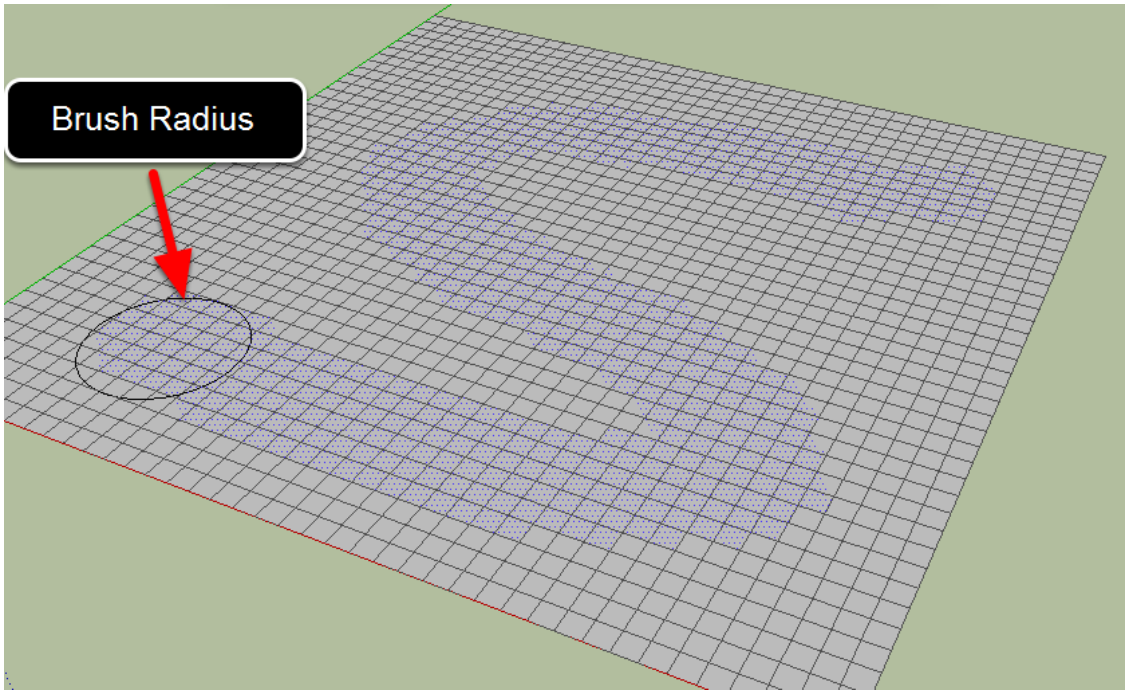
Introduction

The Select Brush is used to select faces in the model by dragging the mouse across them.

Launching the Tool

Click the Select Brush icon from the toolbar (or choose Tools->Artisan->Select Brush from the menu) to launch the tool.

Operation



1. Click and drag to select faces beneath the 'brush'

1. The Brush Radius determines the area of faces that may be selected by the brush. There are several ways to adjust the radius:

- Keying-in a measurement such as '10m'.
- Tapping the left or right arrow keys (left to decrease, right to increase)
- Holding the left or right arrow key down while dragging the mouse up or down

2. Hold the SHIFT key while you click and drag to deselect faces

3. Press ESC to clear the selection.

Note: Only faces can be directly selected by the select brush.

Additional Settings

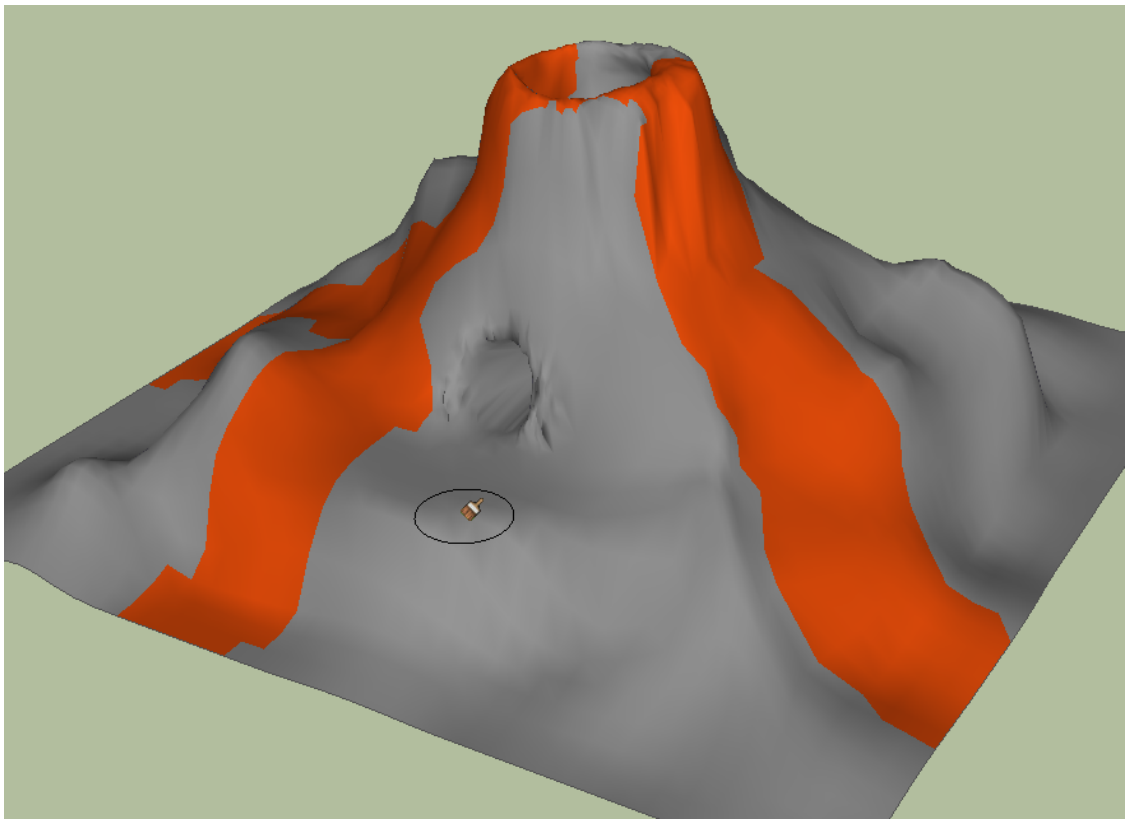
In the 'Settings' dialog:

- Brush Mirror Plane

Paint Brush

Paint Brush

Introduction

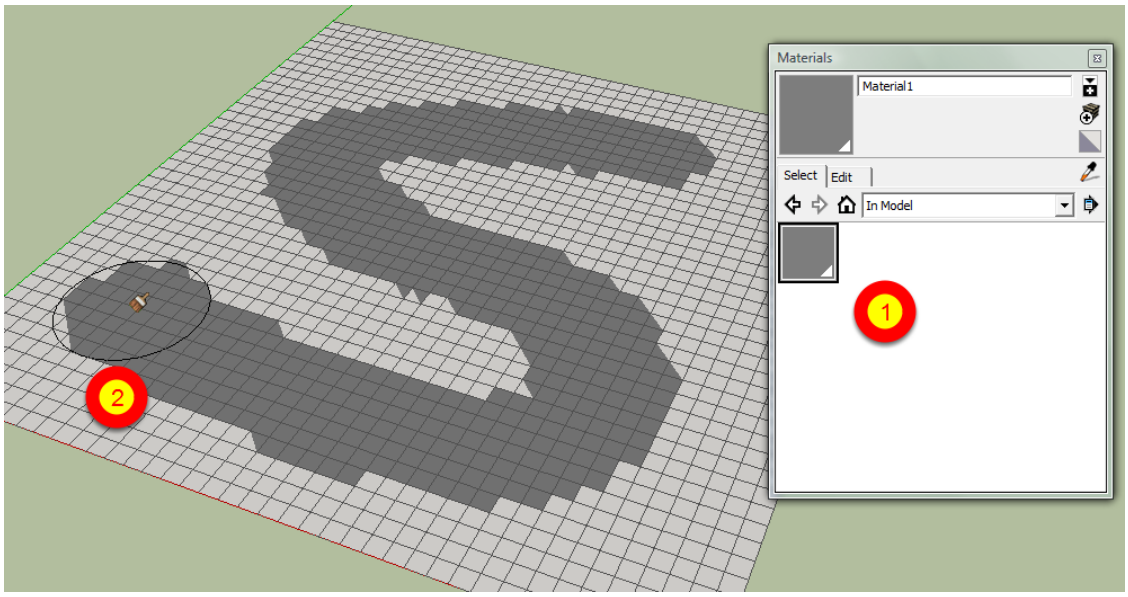


The Paint Brush is used to apply materials to surfaces by dragging across the surface.

Launching the Tool

Click the Paint Brush icon from the Artisan toolbar or choose Tools->Artisan->Paint Brush from the menu

Operation



1. Open the Materials Window and select a material that is in your model. The material cannot be from an external library. Ensure that it is currently in your model.
2. Click and drag to paint faces beneath the 'brush'

The Brush Radius determines the area of faces that may be selected by the brush. There are several ways to adjust the radius:

- Keying-in a measurement such as '10m'.
- Tapping the left or right arrow keys (left to decrease, right to increase)
- Holding the left or right arrow key down while dragging the mouse up or down

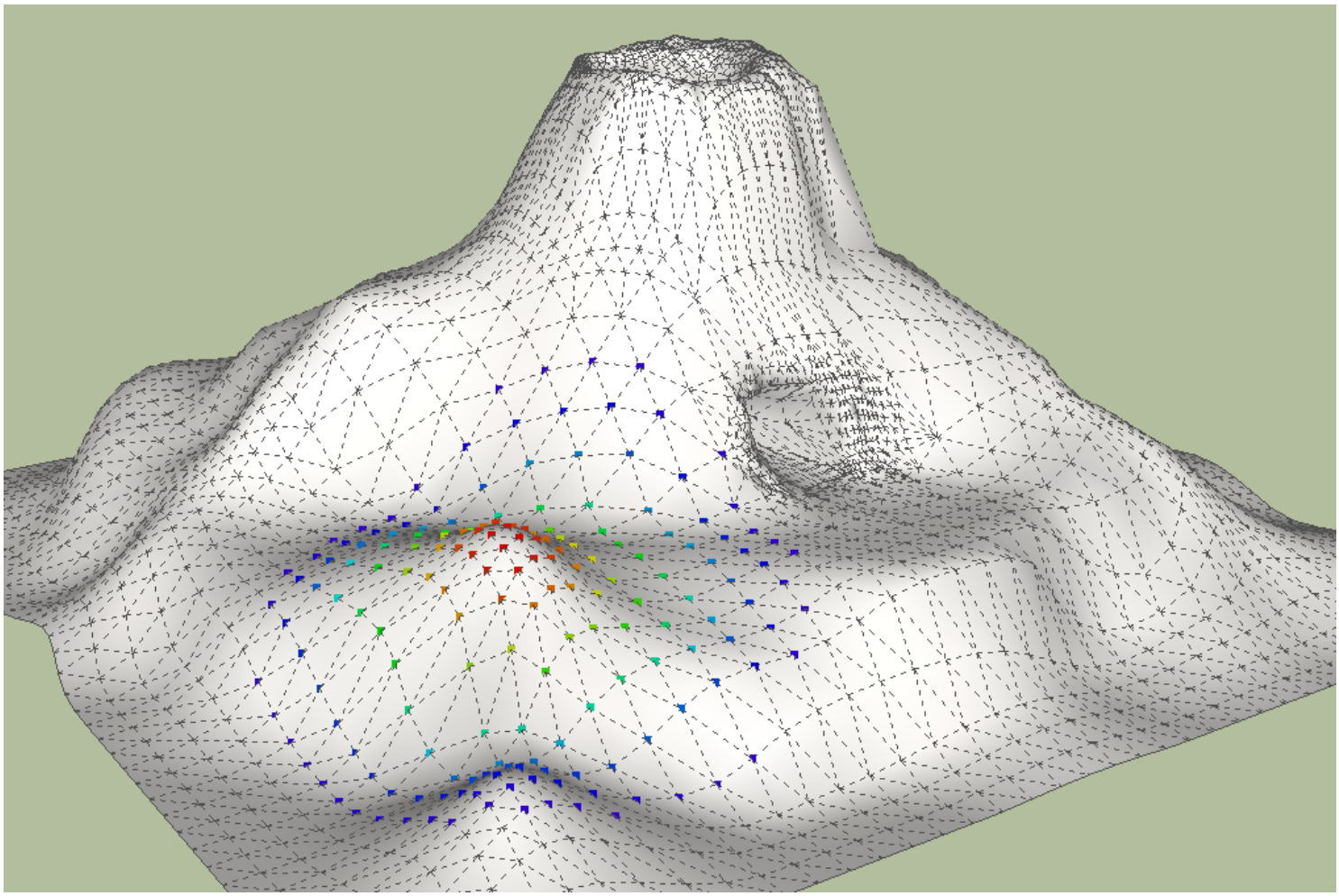
Notes:

- The first face that is clicked will set the planar projection orientation for the UVs
- Hold the ALT (Mac: COMMAND) key and click a face to sample the material and UVs from that face.
- Mac users must first paint a face using the Paint Bucket tool prior to using the Paint Brush tool in order to select the material for painting.
- Only faces can be painted, not edges, groups, or components

Vertex Transformation

Vertex Select

Introduction

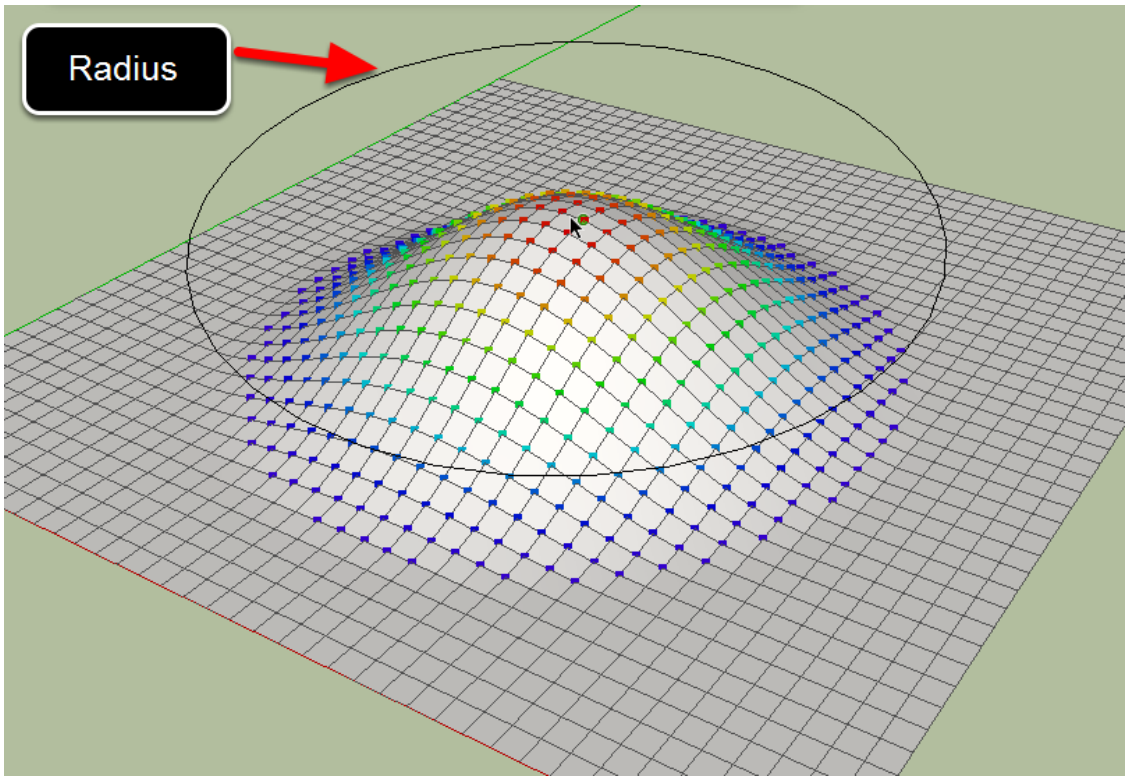


The Vertex Select tool allows you to select vertices as a hard or soft selection so that they can be transformed using the other vertex transformation tools (move, rotate, scale, make planar)

Launching the Tool

Click the 'Vertex Select' icon from the Artisan toolbar or choose Tools->Artisan->Vertex Select from the menu.

Operation



1. Launch the tool
2. If a SketchUp selection is currently active, it will be transformed into a vertex selection. For example, if a face was selected before launching the tool, all vertices of that face will become selected when the Vertex Select tool is launched.
3. If there is no SketchUp selection currently active, the last vertex selection in memory will be loaded.
4. Click a vertex, face, or edge to create a new vertex selection
5. Click-drag to window-select vertices
6. Hold SHIFT and click to toggle selection
7. Hold CTRL and click to add to the selection
8. Hold CTRL+SHIFT and click to remove from the selection
9. Press TAB to toggle between hard and soft selection modes
10. Press ESCAPE to clear the selection

The Radius determines the area that is influenced by the soft selection operation. There are several ways to adjust the radius:

- Keying-in a measurement such as '10m'.
- Tapping the left or right arrow keys (left to decrease, right to increase)
- Holding the left or right arrow key down while dragging the mouse up or down

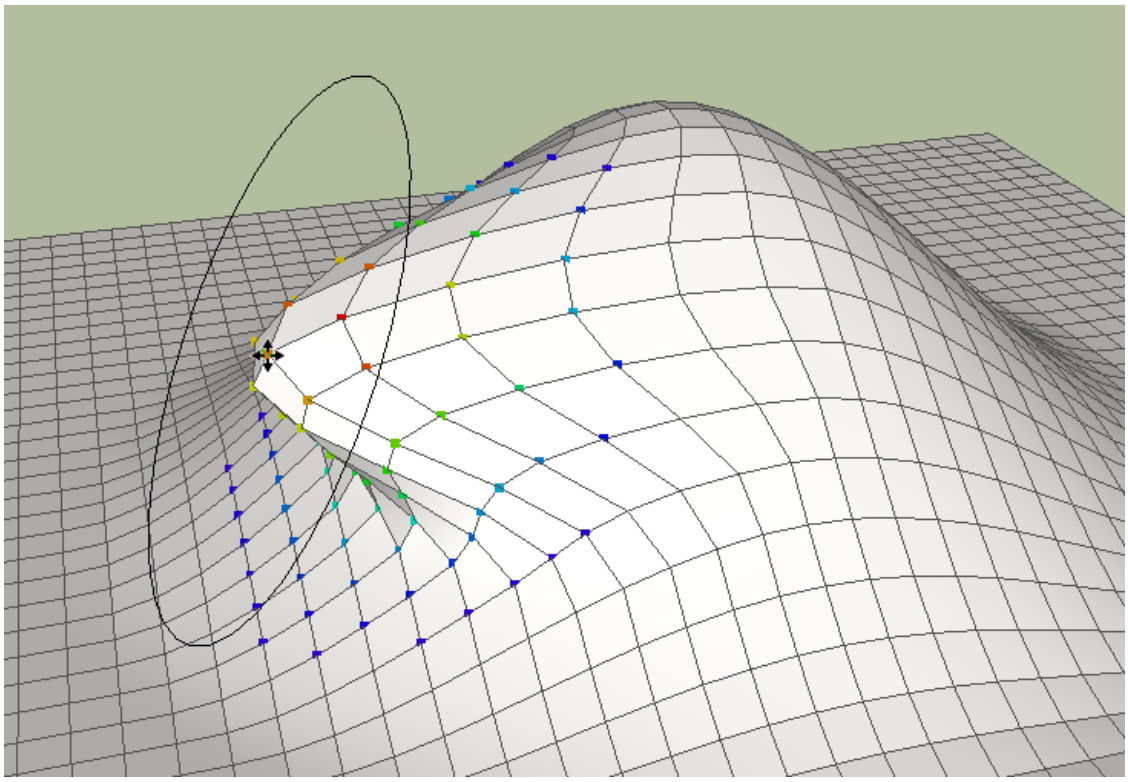
Additional Settings

In the 'Settings' dialog:

- Soft Falloff Mode

Vertex Move

Introduction

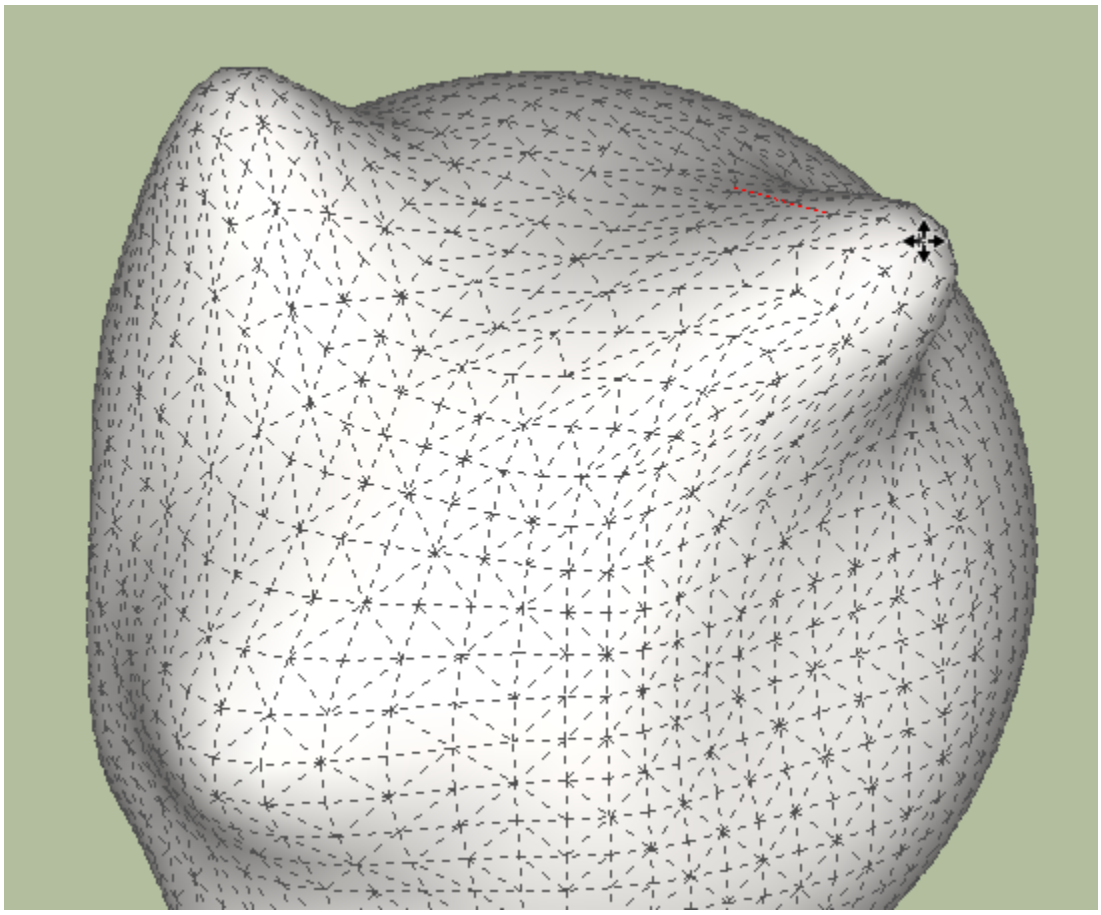


The Vertex Move tool is used to move a selection of vertices similarly to the native SketchUp Move tool.

Launching the Tool

Click the Vertex Move icon from the Artisan toolbar or choose Tools->Artisan->Vertex Move from the menu.

Operation



1. Launch the tool
2. If a SketchUp selection is currently active, it will be transformed into a vertex selection. For example, if a face was selected before launching the tool, all vertices of that face will become selected when the Vertex Move tool is launched.
3. If there is no SketchUp selection currently active, the last vertex selection in memory will be loaded.
4. Click the first reference point
5. Click the second reference point to complete the move operation
6. Press ESCAPE to clear the selection. If there is no selection, hovering the mouse over an entity will select it.

Modifiers:

- Hold SHIFT to move perpendicular (along average normal)
- Hold the UP or DOWN arrows to constrain movement to the Z axis
- Hold the RIGHT arrow to constrain movement ot the X axis
- Hold the LEFT arrow to constrain movement to the Y axis
- Hold CTRL to move along the current camera view plane
- Press TAB to toggle between hard and soft selection modes

Vertex Rotate

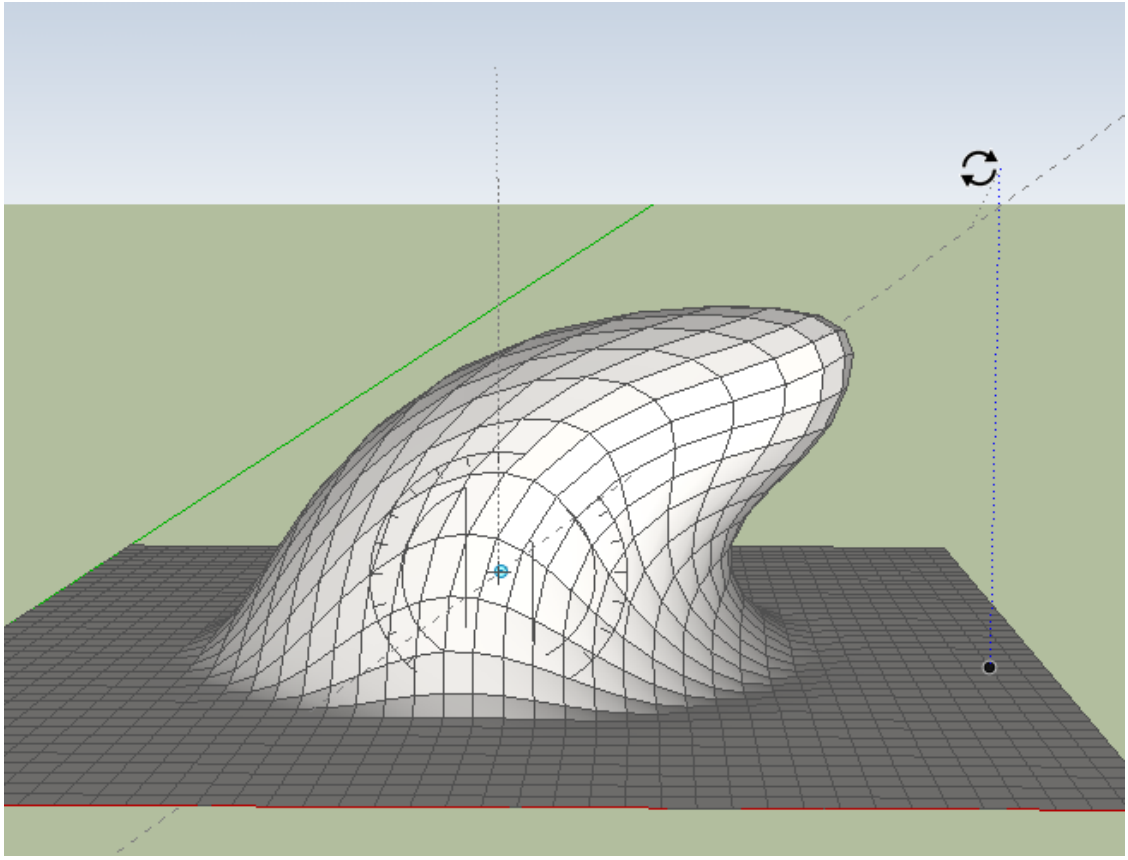
Introduction

The Vertex Rotate tool is used to rotate a selection of vertices similarly to the SketchUp rotate tool.

Launching the Tool

Click the Vertex Rotate icon from the Artisan toolbar or choose Tools->Artisan->Vertex Rotate from the menu

Operation



1. Launch the tool
2. If a SketchUp selection is currently active, it will be transformed into a vertex selection. For example, if a face was selected before launching the tool, all vertices of that face will become selected when the Vertex Rotate tool is launched.

3. If there is no SketchUp selection currently active, the last vertex selection in memory will be loaded.
4. Click the first reference point to set the rotation plane and origin.
5. Click the second reference point to align the bottom of the protractor
6. Click the third reference point to complete the rotation operation
7. Press ESCAPE to clear the selection. If there is no selection, hovering the mouse over an entity will select it.

Modifiers:

- Press TAB to toggle between hard and soft selection modes
- Hold SHIFT when choosing the first reference point to lock the plane of the protractor.

Vertex Scale

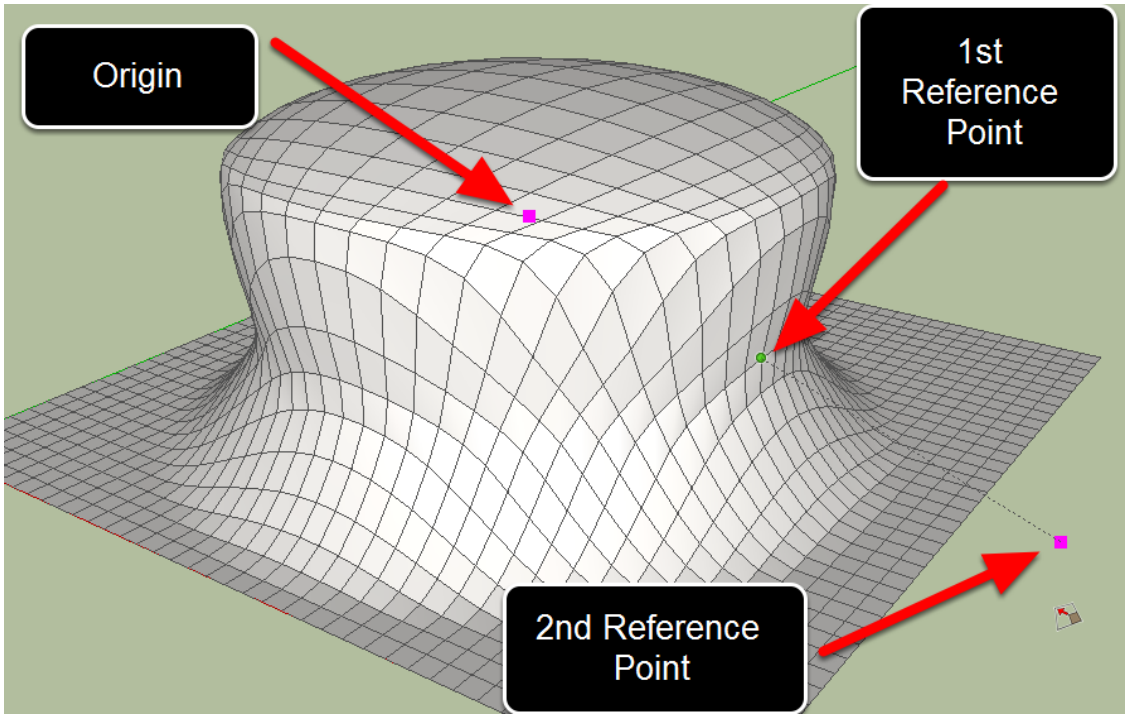
Introduction

The Vertex Scale tool is used to scale a selection of vertices. This tool can create the effect of inflating or deflating areas of a mesh.

Launching the Tool

Click the 'Vertex Scale' icon from the Artisan toolbar or choose Tools->Artisan->Vertex Scale from the menu

Operation



1. Launch the tool
2. If a SketchUp selection is currently active, it will be transformed into a vertex selection. For example, if a face was selected before launching the tool, all vertices of that face will become selected when the Vertex Select tool is launched.
3. If there is no SketchUp selection currently active, the last vertex selection in memory will be loaded.
4. Click the first reference point to set the scale origin.

5. Click the second reference point.
6. Click the third reference point to complete the scaling operation
7. Press ESCAPE to clear the selection. If there is no selection, hovering the mouse over an entity will select it.

Modifiers:

- Press TAB to toggle between hard and soft selection modes
- Hold CTRL to scale about the selection center

Make Planar

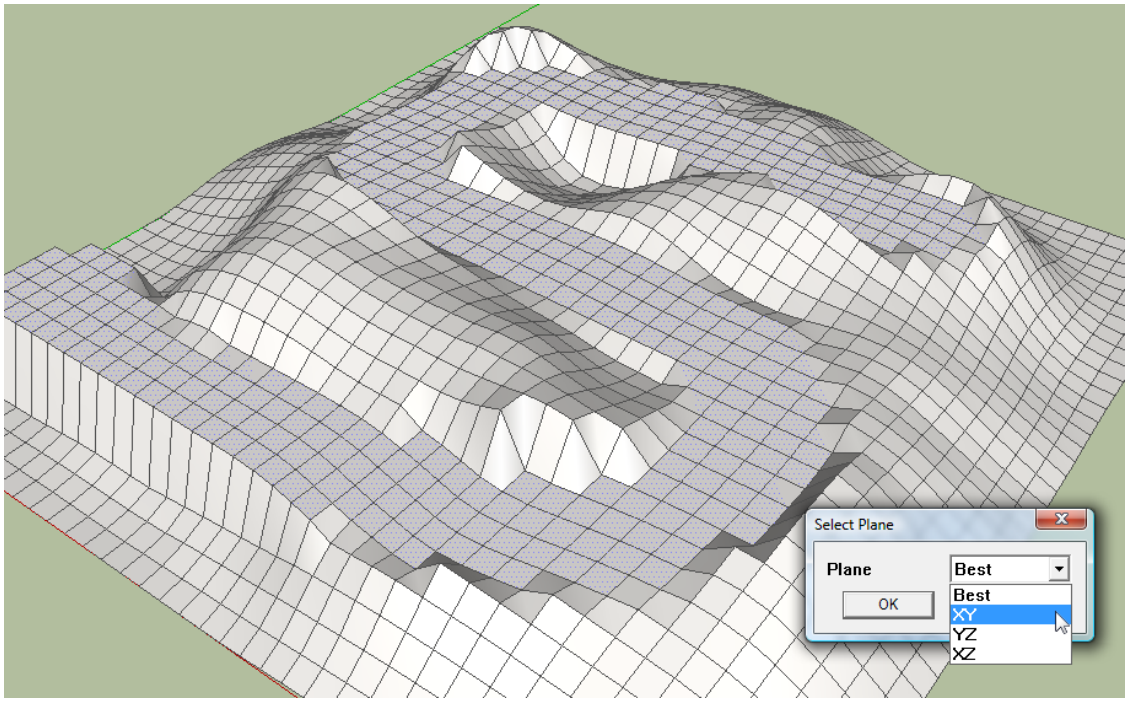
Introduction

This tool is used on a selection of vertices to align them to a common plane.

Launching the Tool

Click the 'Make Planar' icon from the Artisan toolbar or choose Tools->Artisan->Make Planar from the menu.

Operation

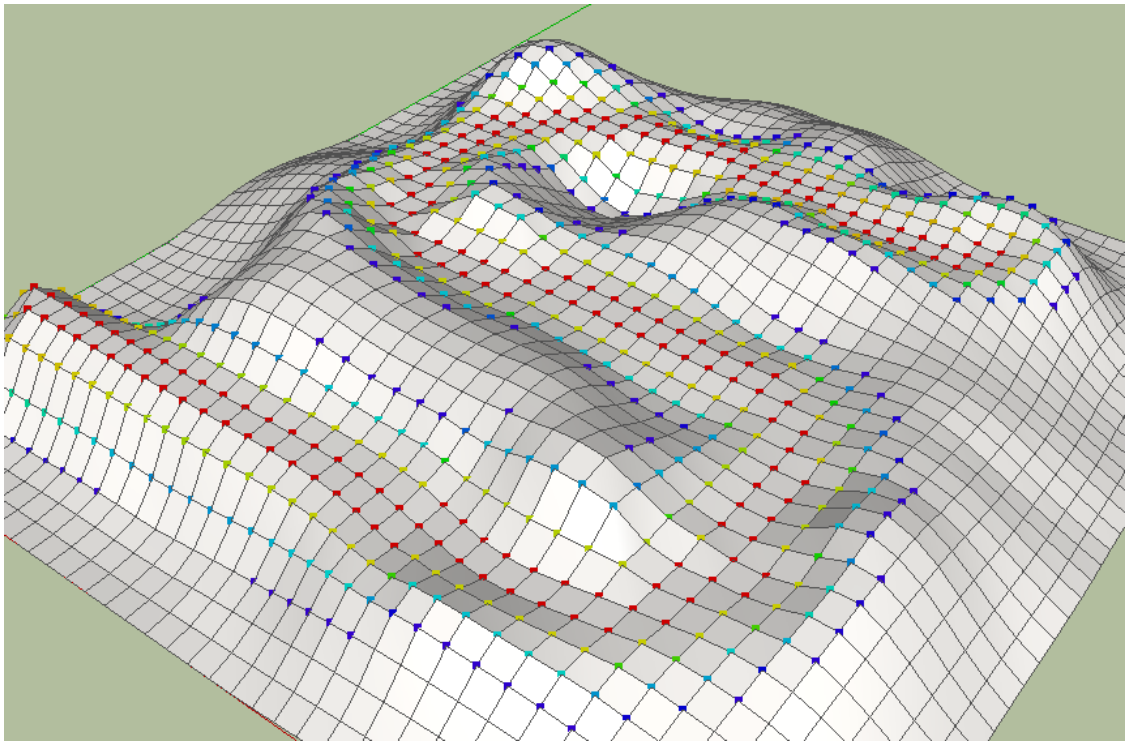


1. Create a vertex selection by using the Vertex Select tool or by using the SketchUp selection tool.
2. Launch the tool
3. Select the desired plane from the dialog box
4. Click OK and the vertices of the selection will be aligned to the chosen plane.

Note:

- The 'Best' plane is the plane that best fits the selected vertices
- Soft selected vertices can also be used with this tool

Make Planar using Soft Selection

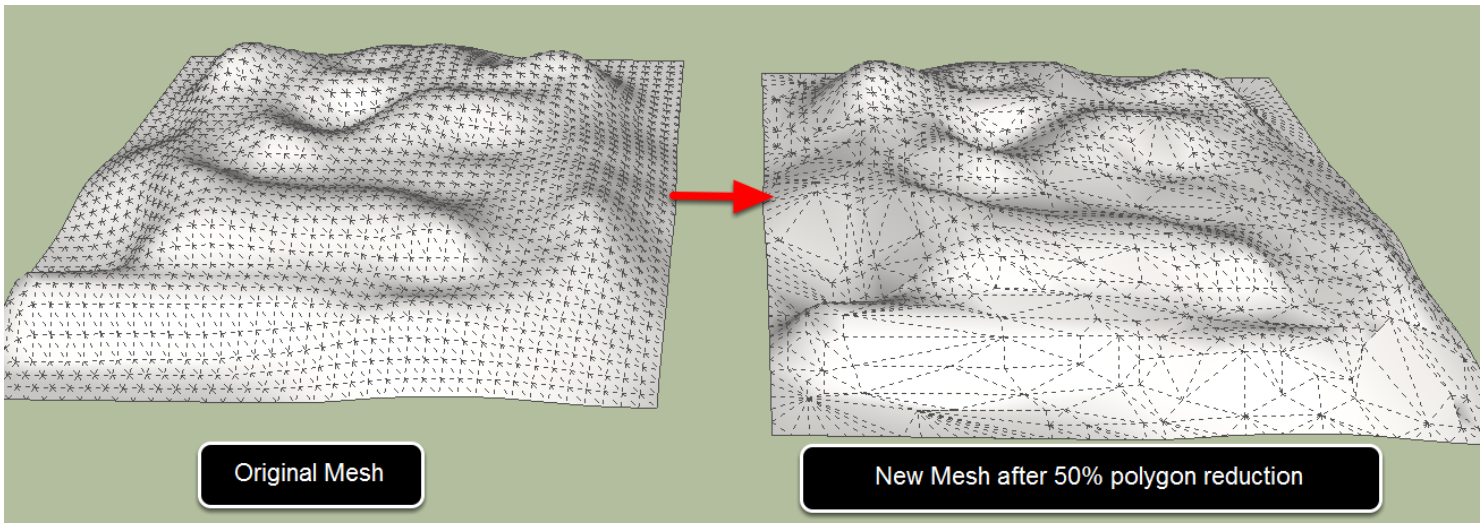


In the figure above, the Select Brush tool was used to select a sequence of faces forming an 'S'. Then, the Vertex Select tool was used to transform the selection into a soft selection of vertices. Finally, the Make Planar tool was used to flatten the vertices to the XY plane.

Mesh Tools

Reduce Polygons

Introduction

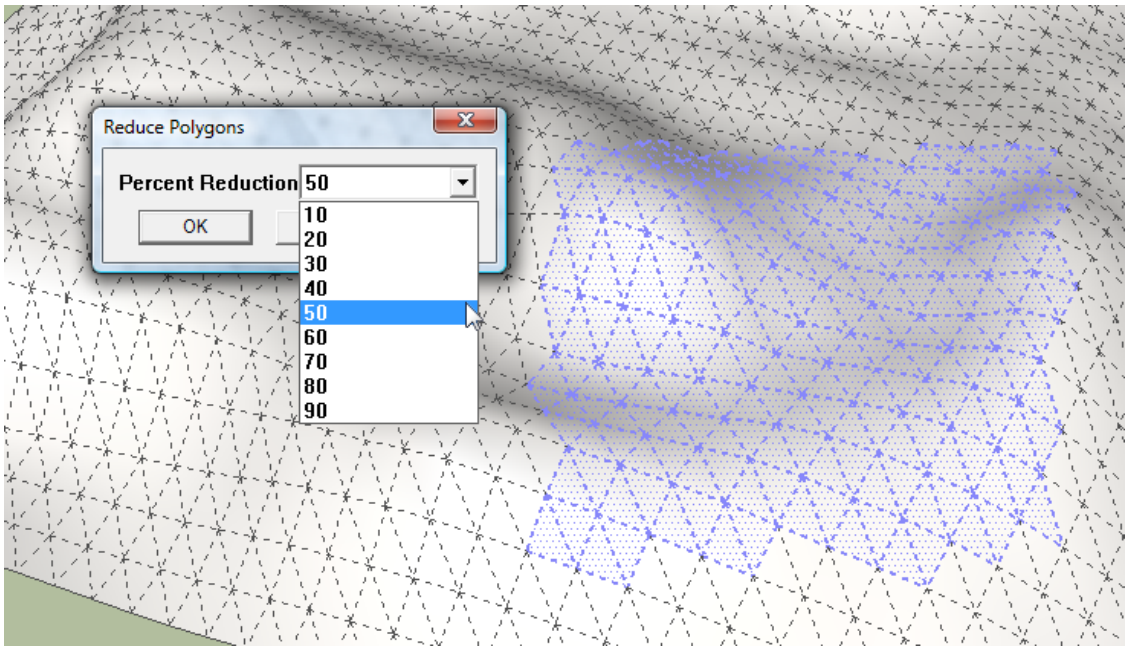


The Reduce Polygons tool is used to optimize the number of polygons in a mesh.

Launching the Tool

Click the Reduce Polygons tool from the Artisan toolbar or choose Tools->Artisan->Reduce Polygons from the menu.

Operation



1. Select the faces in the area that you wish to reduce.
2. Launch the tool
3. Choose the percent reduction. For example, if you choose 30%, the total number of polygons will be reduced by 30%

Note:

- The mesh must be triangulated prior to reduction. Any faces that are not triangles will be automatically triangulated when the operation is performed.
- The percentage of reduction refers to the number of triangles, not the number of faces. An individual face could be made up of many triangles.
- This tool does not maintain material assignments.
- The reduction operation may produce overlapping faces. One way to fix this issue is to apply the Sculpt Brush in 'smooth' mode in the area of overlapping faces.
- The reduction operation may take several minutes.
- It is suggested to reduce a mesh in several small increments (eg. 20%) instead of using one large value.
- For better performance, use this tool by first selecting specific areas of a mesh using the Select Brush instead of selecting the entire mesh.
- Free edges (border edges) will be maintained when using this tool.

Triangulate

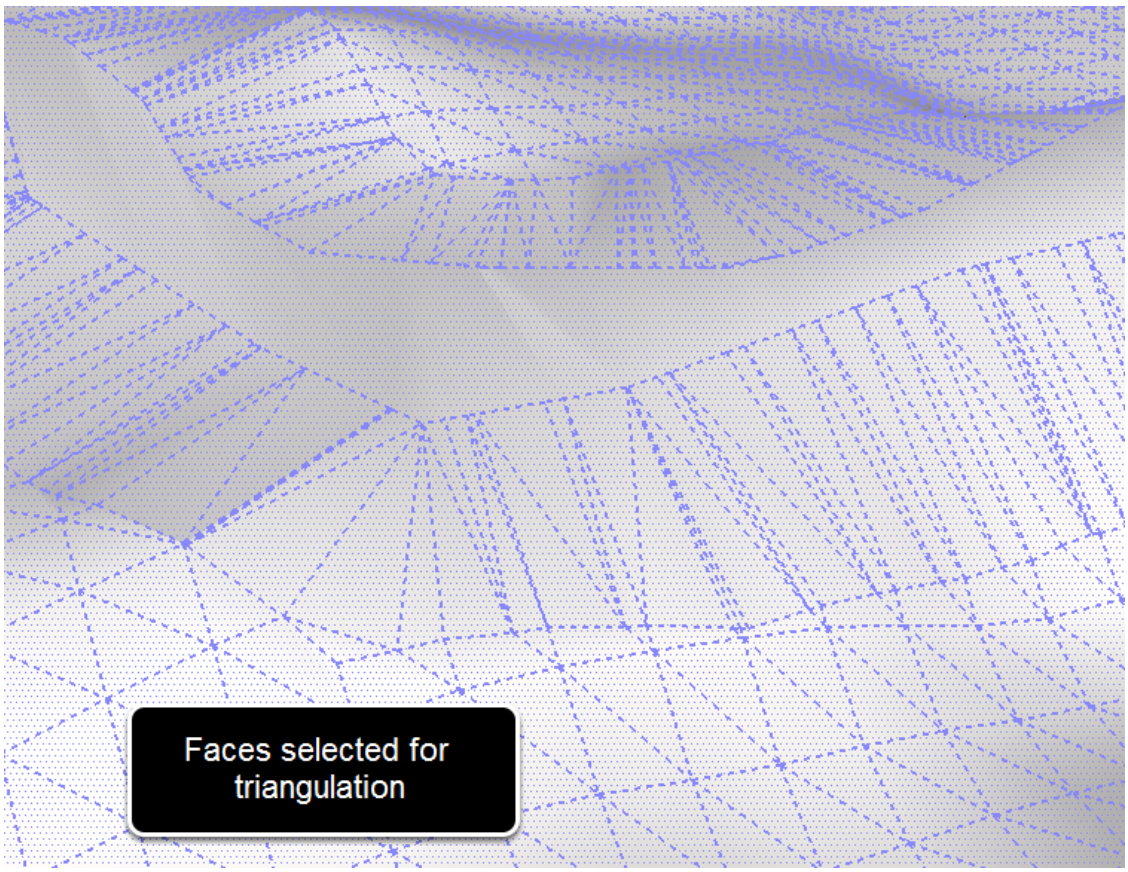
Introduction

The 'Triangulate' tool in Artisan will divide all of the selected faces into triangles. Existing triangles will not be modified. Many of the tools in Artisan (sculpting, smoothing, polygon reduction) produce better results when using triangulated geometry.

Launching the Tool

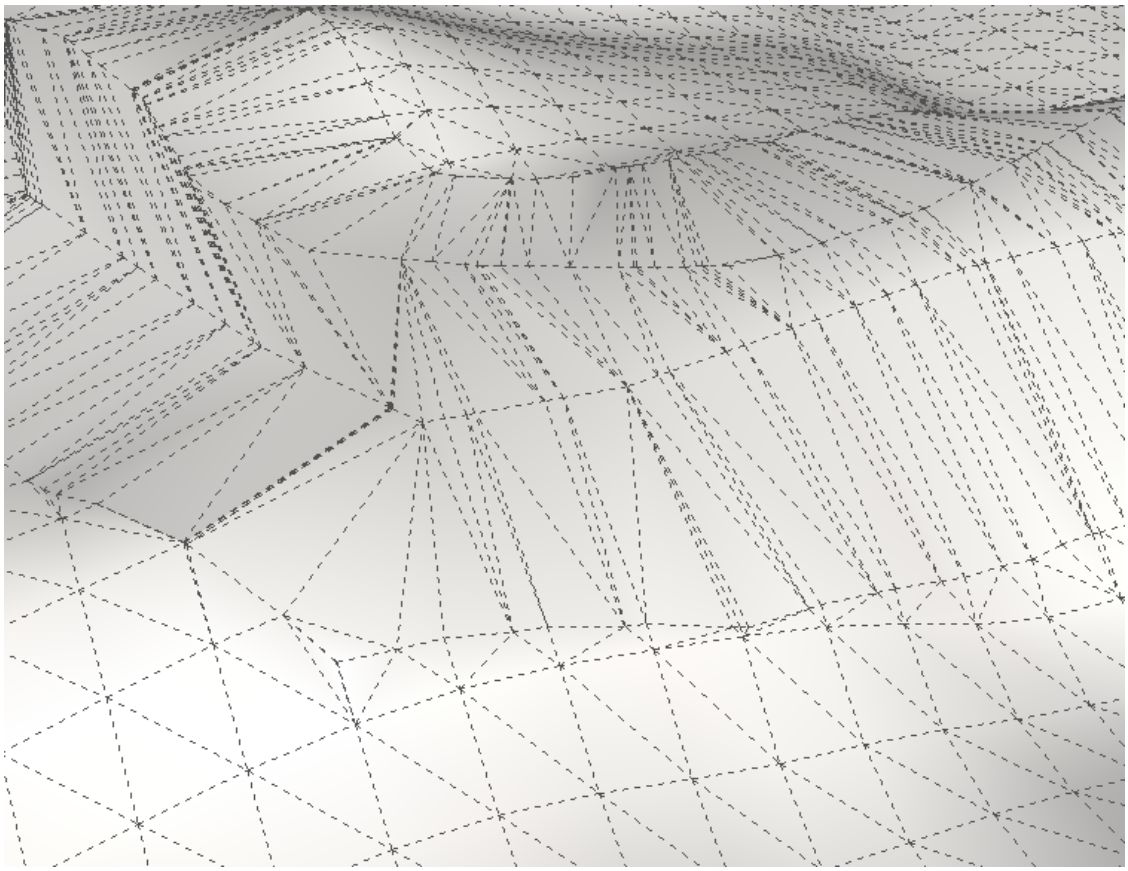
The Triangulate tool is found in the Artisan menu. Go to Tools->Artisan->Triangulate to activate it.

Operation



1. Select the faces for triangulation
2. Launch the tool
3. The selected faces will be triangulated (see figure below)

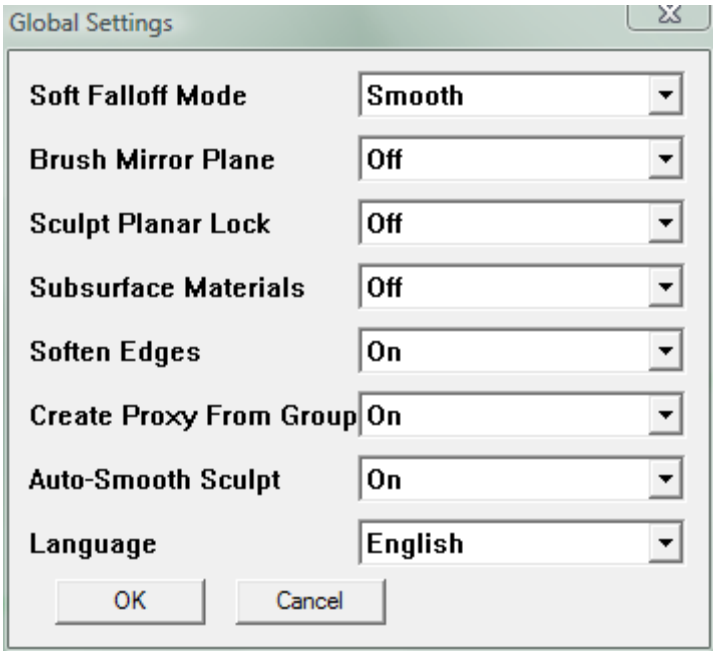
Result of Triangulation



Settings

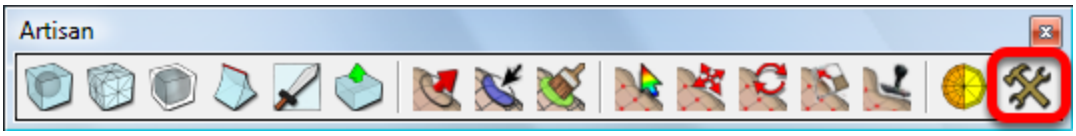
Settings

Introduction



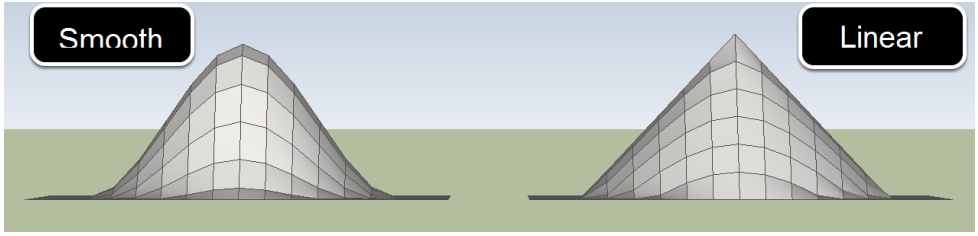
The Settings dialog allows you to set a number of options that affect the behavior of other Artisan tools.

Launching Settings



Click the Settings icon from the Artisan toolbar or choose Tools->Artisan->Settings from the menu.

Soft Falloff Mode

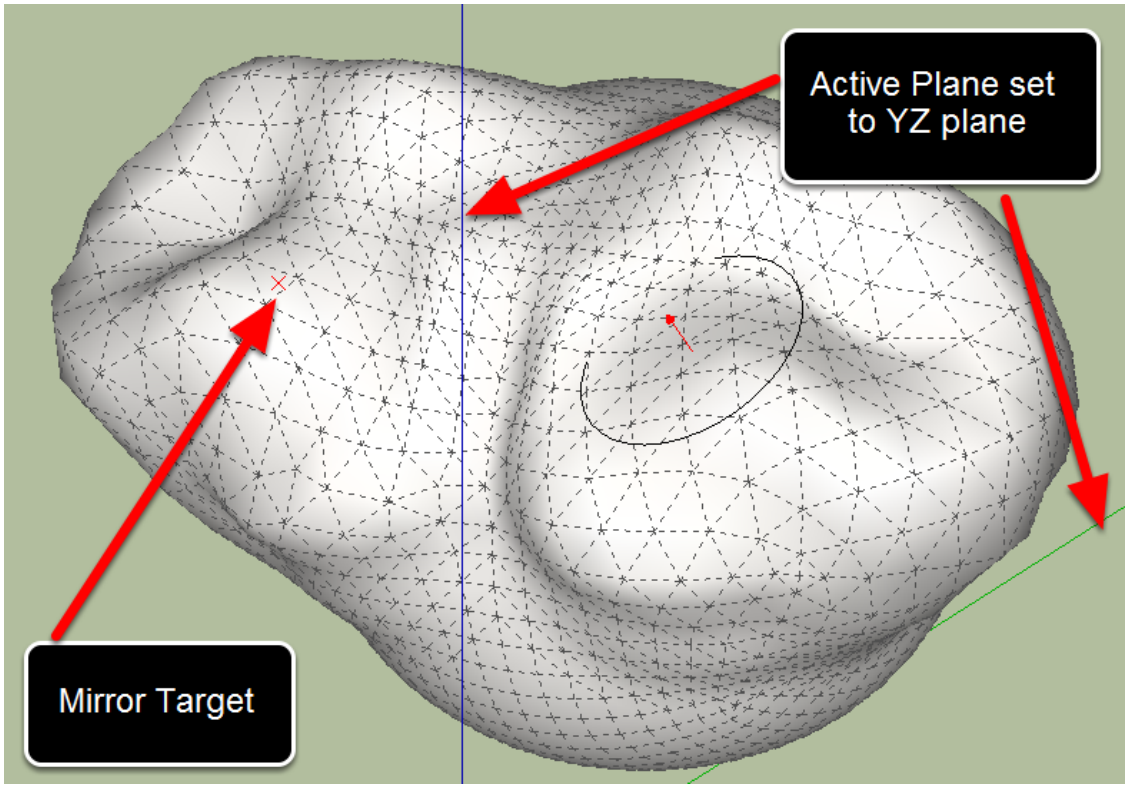


Tools Affected:
Sculpt Brush
Vertex Select

Vertex Move
Vertex Rotate
Vertex Scale
Make Planar

The Smooth Mode will result in a smooth selection curve that is tangent at the selection boundary. The Linear Mode will result in a linear selection curve that is discontinuous at the selection boundary.

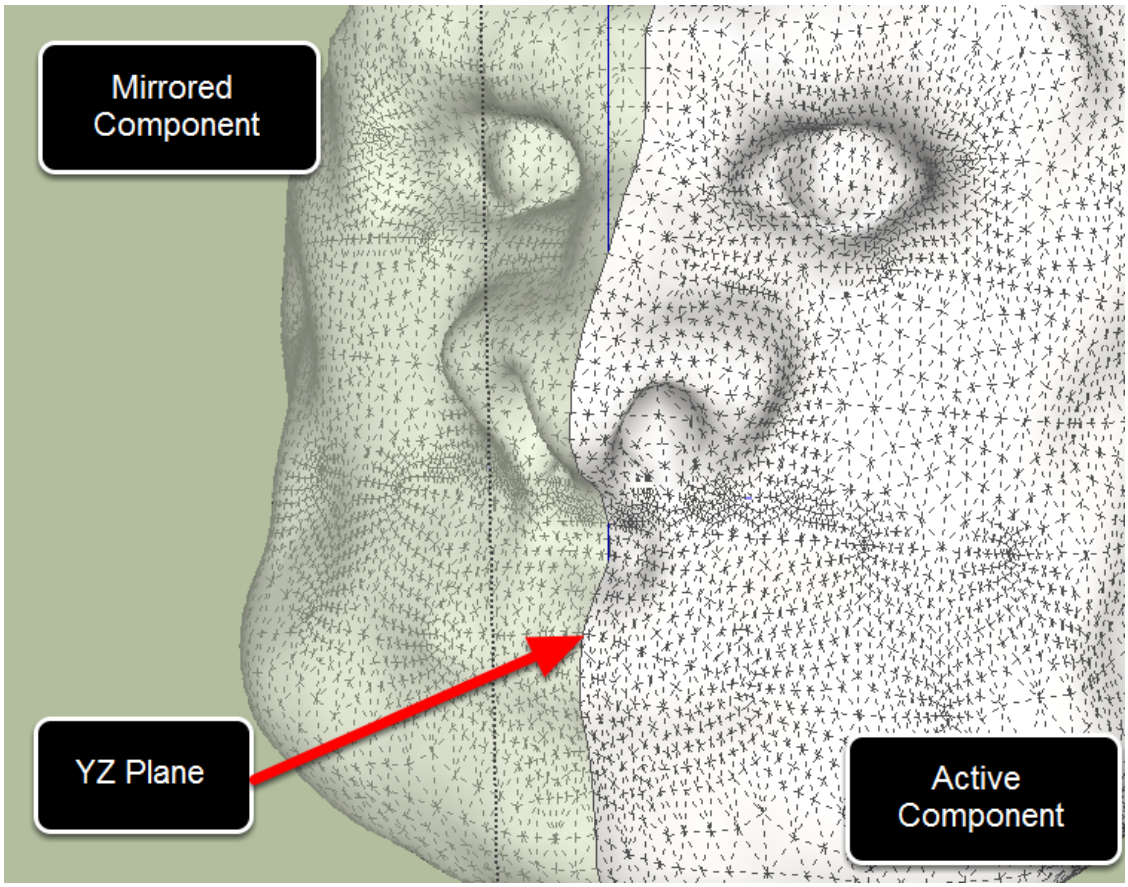
Brush Mirror Plane



Tools Affected:
Sculpt Brush
Select Brush

If this setting is enabled, the brush strokes of the affected tools will be 'mirrored' on the opposite side of the active plane which allows modeling of symettrical objects. The active plane is the YZ plane by default but it can be changed by using the 'Set Active Plane' tool (found in the Artisan menu). Ared X will be displayed to show where the 'mirrored' cursor position is.

Sculpt Planar Lock

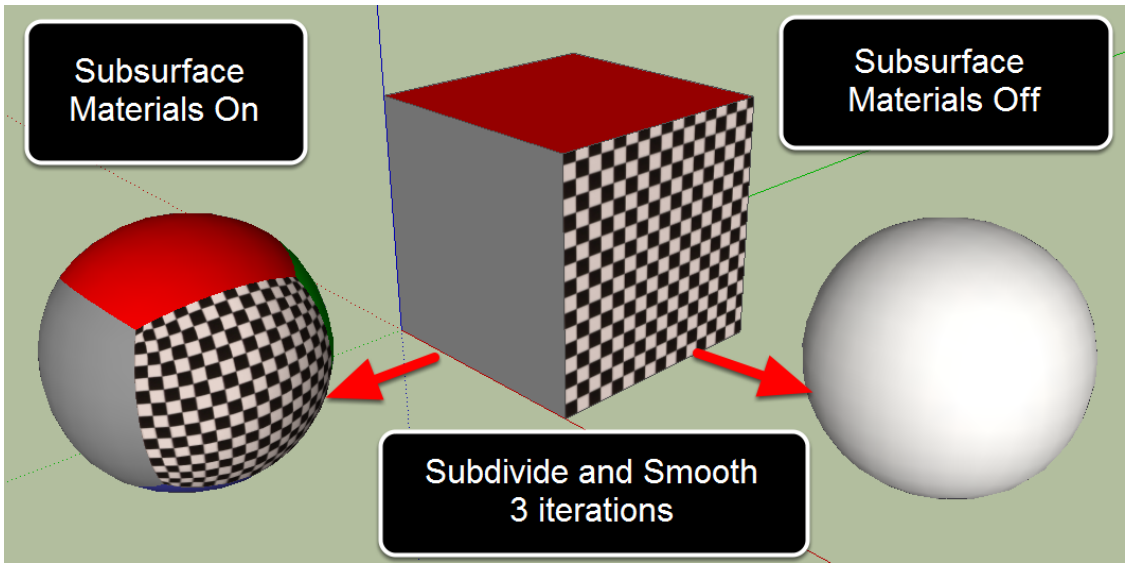


Tools Affected:
Sculpt Brush

Enabling Sculpt Planar Lock allows you to lock vertices to the active plane. **The vertices that currently reside on the active plane during sculpting will remain on this plane**. One use of this feature is that symmetrical sculpting can be performed using a regular component and a 'flipped' or mirrored component. If these components are positioned so that the interface vertices reside on the active plane, then these vertices will remain on the plane during sculpting so that the interface or seam will not be torn apart during sculpting.

In the figure above, the active plane is the YZ plane and sculpt planar lock has been enabled. The interface between the two mirrored components lies directly on the YZ plane. During sculpting, the vertices on the YZ plane remain locked to this plane so that the seam is not torn apart.

Subsurface Materials



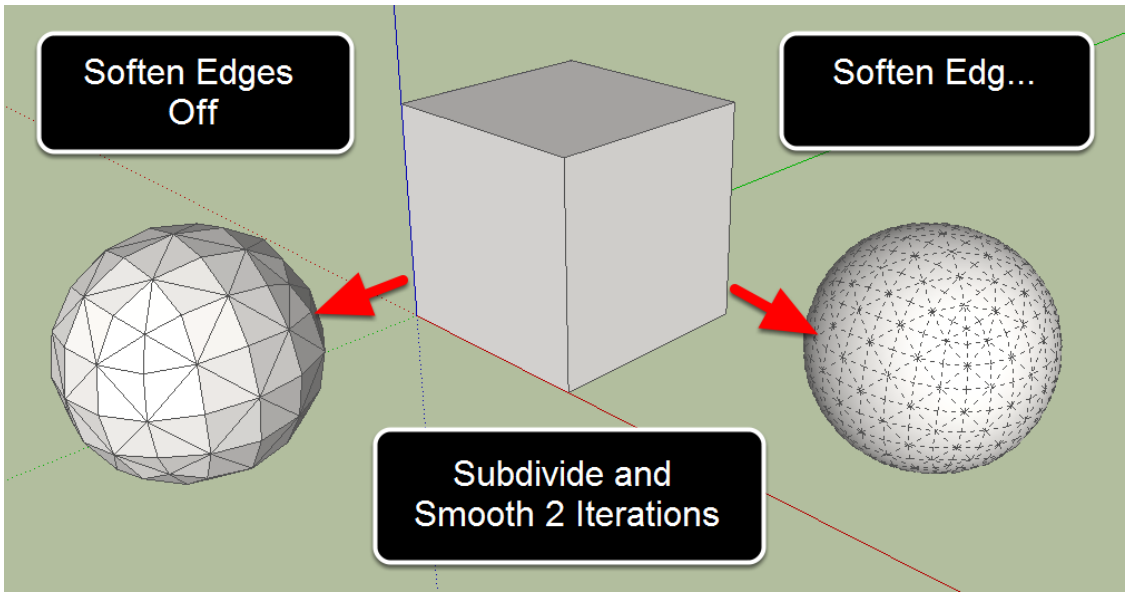
Tools Affected:
Subdivide and Smooth
Subdivide Selection

Enabling Subsurface Materials allows subdivided surfaces to inherit the material assignments of the proxy.

When this settings is enabled, a warning message will appear because the speed of subdivision operations will become much slower when this feature is enabled. In general, it is recommended to apply materials after all modeling work has been completed.

An advantage of this feature is that texture UVs will be inherited in the subdivided surface which can make it easier to UV map a subdivided mesh.

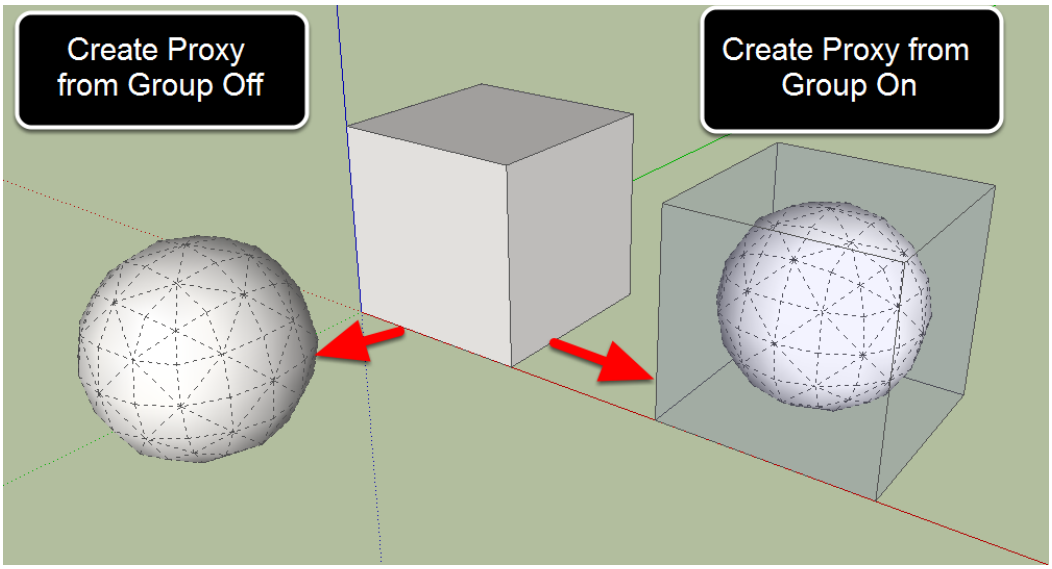
Soften Edges



Tools Affected:
Subdivide and Smooth
Subdivide Selection

This settings determines whether subdivision operations will produce softened edges or hard edges.

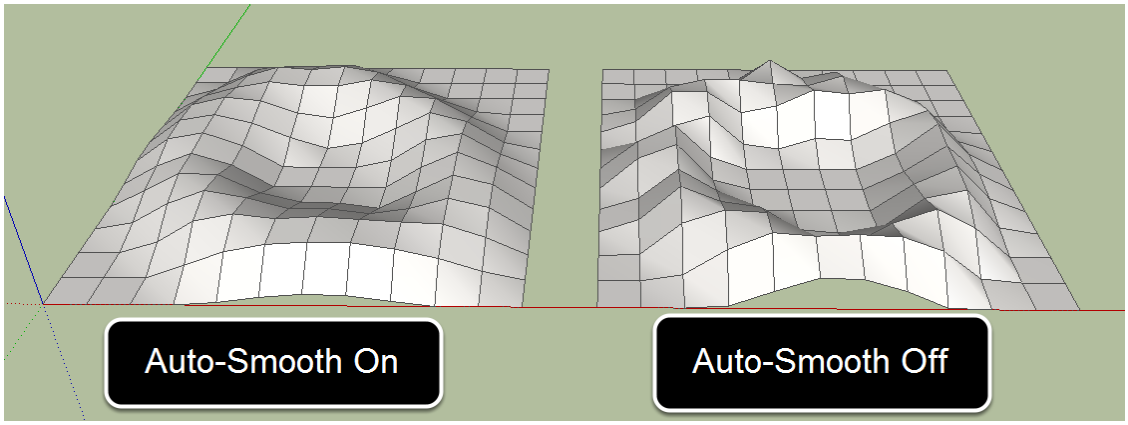
Create Proxy From Group



Tools Affected:
Subdivide and Smooth

This settings determines whether proxy mode will be activated when using the 'Subdivide and Smooth' tool on a Group.

Auto-Smooth Sculpt



Tools Affected:
Sculpt Brush (Sculpt Mode Only)

When this settings is enabled, a smoothing pass is performed on each brush stroke. Only the basic sculpt mode is affected by this tool. Other modes such as pinch, inflate, flatten, smooth, are not affected.

Language

Select the preferred language. After changing the language, it is recommended to re-start SketchUp so that the toolbar and menu items will be properly translated.

Language files are located in the **..\Plugins\artisan\localization** folder.

Custom language files can be created by duplicating one of the language files and editing it with a text editor. **The language files must be encoded in UTF-8 format or errors may occur.**

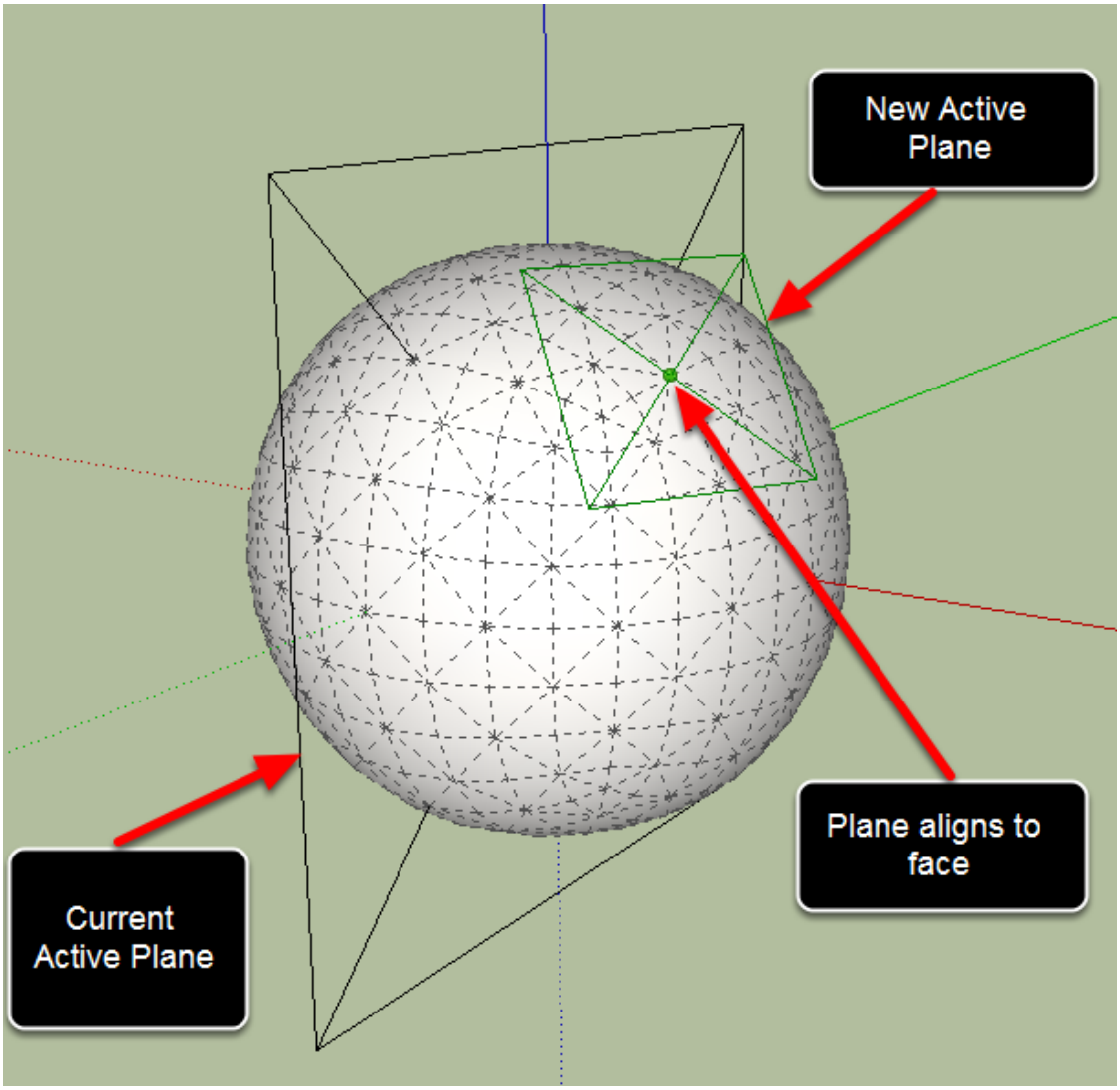
If you have created a custom language file, please email it to support@artisan4sketchup.com so it can be included in a future Artisan release.

Active Plane

Introduction

The active plane is the plane that is used as a mirror plane or the planar lock plane during sculpting modes. Both of these settings are turned off by default but they can be enabled by using the 'Settings' dialog.

Setting the Active Plane



Choose Tools->Artisan->Set Active Plane from the menu.

The black rectangle shows the current active plane.

Click to set a new plane.

Hold SHIFT to lock the current plane orientation.

Additional Support

Video Tutorials

Official Artisan video tutorials can be found on the Artisan website:

Artisan Video Tutorials

Registration code is not valid

1. Use copy/paste (CTRL+C and CTRL+V) to copy and paste the code from the email to the registration dialog box

Lost registration code

1. Contact Artisan support

I purchased Artisan but have not received a registration code

1. Check your spam or junk email folder.
2. Ensure that you are checking the email account that was used to make the purchase through Paypal

Contact Artisan Support

Contact Information

For any questions or to submit a feature request, please email:

support@artisan4sketchup.com

Thank you!

Acknowledgements

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The CatchUp team
Beta testing team
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