

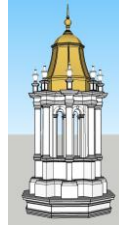
SketchUp Basics

Christopher Sutton, PhD
WU Department of Geography



SketchUp Software

- What is SketchUp?
 - A 3D modeling computer program

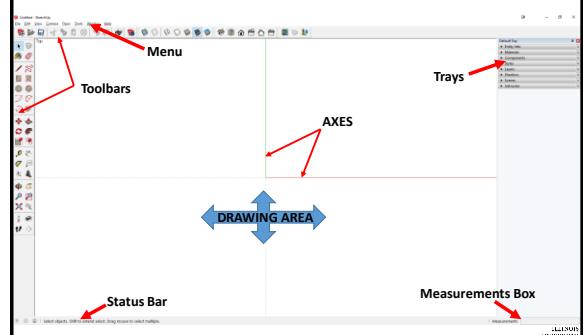


SketchUp Software

- Versions [www.sketchup.com/download]
 - SketchUp Make (Free)
 - SketchUp Pro
- Video Tutorials
 - From SketchUp: www.sketchup.com/learn/videos
 - YouTube SketchUp Channel: www.youtube.com/user/SketchUpVideo
- Resource Sites
 - SketchUp Community: forums.sketchup.com
 - Extension Warehouse (add-ons by SketchUp): extensions.sketchup.com
 - Smustard (additional tools and plugins): www.smustard.com
 - Books, etc. www.sketchup.com/learn/resources

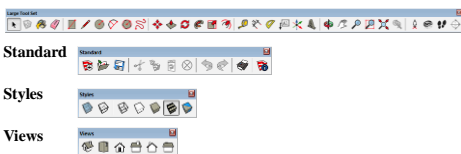


The SketchUp Environment



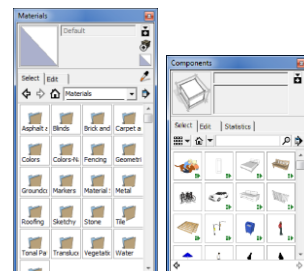
SketchUp Display Environment

- Toolbars (**View > Toolbars**)
 - **Deselect** the Getting Started toolbar
 - Turn on the following
 - Large Tool Set
- Standard
- Styles
- Views



SketchUp Display Environment

- Trays (activate through the Window menu)
 - There are many, but the two most important are
 - Materials
 - Components



Orbiting

Three Ways to Activate the Orbit Tool in SketchUp

1. Click once on the orbit icon in your toolbar. Then you can left click and drag in your workspace to orbit around your model.
2. Type the "o" key on your keyboard, then left click and drag in your workspace to orbit in your model.
3. Click and hold the scroll wheel on your mouse, then drag your mouse around in your model to orbit. If you use this method, you can resume using your active tool by letting up on the scroll wheel.



Click and Hold

TheSketchUpEssentials.com



Panning

Three Ways to Activate the Pan Tool in SketchUp

1. Click on the pan tool icon in your view toolbar. Then click and drag on your screen to pan your camera around.
2. Press the "h" key on your keyboard. Then click and drag on your screen to pan your camera around.
3. Hold the shift key on your keyboard, click and hold the scroll wheel on your mouse, and drag your mouse to pan. Let up on the scroll wheel button to return to normal operation.



Hold down the shift key, then click and hold the scroll wheel button

TheSketchUpEssentials.com



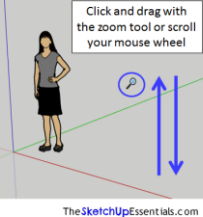
Zooming

Zooming In and Out in SketchUp

Activate the zoom tool by clicking on the zoom tool icon or by pressing the "z" key on your keyboard.

Click and drag up to zoom in, or down to zoom out.

You can also zoom in and out by scrolling your mouse wheel up and down. Your view will zoom in and out based on wherever you have your mouse cursor on the screen.








Click and drag with the zoom tool or scroll your mouse wheel

TheSketchUpEssentials.com



Essential Tools

- **Principal Tools** 
 - **Select, Make Component, Paint Bucket, Eraser**
- **Drawing Tools** 
 - **Line, Freehand, Rectangle, Rotated Rectangle, Arc, 2-point Arc, 3-point Arc, Pie**
- **Edit Tools** 
 - **Move, Push/Pull, Rotate, Follow Me, Scale, Offset**
- **Construction Tools** 
 - **Tape Measure, Dimensions, Protractor, Text, Axes, 3D Text**
- **Location Tools** 
 - **Add location, Toggle Terrain, Photo Textures**



Principal Tools

- **Select Tool**
 - Use Shift or Ctrl (Option) keys to add to selection
 - Use Shift and Ctrl (Option) keys to remove from selection
- **Eraser Tool**
 - Use Shift key to hide rather than erase
 - Use Ctrl (Option) key to soften/smooth edges
- **Paint Bucket Tool**
 - Use to apply materials or colors



Drawing Tools

- **Line Tool**
- **Arc Tool**
- **Freehand Tool**
- **Rectangle Tool**
- **Circle Tool**
- **Polygon Tool**



Modification Tools

- **Move Tool**
 - Use Ctrl (Option) to create copies
- **Rotate Tool**
- **Scale Tool**
- **Push/Pull Tool**
 - Used to create a volume
- **Offset Tool**
- **Follow Me Tool**
 - Used to create a face along a path
- **Intersect With Model Tool**
- **Position Texture Tool**
 - Used to manipulate and reposition materials



Construction Tools

- **Tape Measure Tool**
 - Create guide lines and guide points
 - Measure distance
- **Protractor Tool**
 - Create angled guide lines
- **Axes Tool**
 - Change the drawing axes
- **Dimension Tool**
 - Insert edge dimensions
- **Text Tool**
- **3D Text Tool**

