How to Sketch Roofs in Xactimate

There are multiple ways to create a roofing estimate in Xactimate. One of the most efficient methods is to diagram the roof in Sketch. When using Sketch to diagram the roof, you provide Xactimate with all the necessary dimensions to accurately estimate the roofing material quantities. Additionally, sketch allows you to include professional roof diagrams and digital images within the printed estimate. To Sketch a roof follow the six-step process below:

**Step 1  Sketch the Building Outline**

Starting on the Main Level of Sketch, use the Room tool and Square Break tool to diagram a room that reflects a footprint of the building’s perimeter. In the room properties, it is helpful to set the Wall Thickness of the room to 0” so that both inside and outside measurements are identical. (Diagraming the footprint is not required, but it is extremely helpful for complex roofs with multiple overbuilds.)

**Step 2  Add a Roof Level**

Right-click on the Main Level tab (in the bottom left corner of Sketch) and click Insert Above. This will add a new level above the Main Level that can be used to Sketch the roof. For complex roof systems you may need to add additional roof levels.

Name the new level Roof or something similar and give it a Level Code name. Click OK then Close to finish adding the new Roof level. You should then see a new Sketch level tab, titled Roof.
Step 3 Select the Auto Below Underlay

While on the Roof level, select the Auto Below in the Select Underlay dropdown sketch menu. This allows you to see the outline (underlay) of the Main Level sketch while on the Roof Level. The underlay allows you to snap your roof sections to the building footprint which you sketched on the Main Level.

Step 4 Sketch the First Roof Section

Use the Roof tool (keyboard shortcut F) to place the first section of roof. It is helpful to start with the largest roof section first, working to the smallest roof section. Use the Space Bar to change the roof type and the Tab key to rotate the roof when it is on the cursor in dotted-line mode. Move the roof into place and let the dotted wall line of the roof snap into place with the underlay. Once the roof is in place, left-click to place it on the Sketch workspace.

Once the first roof section is in place, double-click the Roof1 name to access the Roof Properties. In the Roof1 Properties:

1. Rename the roof to something appropriate [General]. Select the correct Roof Type [Dimensions].
   a. Gable
   b. Flat/Shed
   c. Hip
   d. Partial Hip
   e. Dutch Hip
   f. Half Hip
   g. Gambrel
   h. Barrel
   i. Turret
   j. Custom
2. Set the Eave Heights, if different from main roof eave elevation [Dimensions].
3. Set the Eave and Rake Overhangs [Dimensions].
4. Set the roof Slope(s). In cases where the roof section is non-symmetrical, use Rafter Lengths rather than Slope [Dimensions].
5. Where necessary, lock the roof dimensions. (Note: these can be unlocked from the actual sketch)

Click on the Sketch workspace to close the Roof Properties window.
To set the correct dimensions for the roof, **Click and Drag** the blue handles (on the edge of the roof) until the edge of the roof snaps in place with the corresponding underlay wall, or you reach the correct roof dimension. If you do not see the blue handles on the edge of the roof, single-click on the roof name to bring back the handles.

**Step 5** Sketch Additional Roof Sections (Overbuilds)

Once the largest roof section is completed, use the **Square Break** tool and **Ctrl + Drag** to add the additional sections of roof (overbuilds).

Using the **Square Break** tool, click the roof edge in the approximate area where the new roof section will tie in. This will place a break line on the roof edge (as seen below).

Move the mouse cursor over the handle (where you want the new roof to be) until the cursor turns into the multi-direction arrow. Hold down the **Ctrl key** on the keyboard and **click and drag** out the new section of roof. Drag the new roof section until the edge of the roof snaps in place with the corresponding underlay wall, or when you reach the correct roof dimension.
Go into the Roof Properties for each additional roof section and:

1. **Rename** the roof to something appropriate [General].
2. Select the correct **Roof Type** [Dimensions].
   a. If a Hip roof tie-in, decide whether to use Both Ends, End A, B, C, or D only.
3. Set the **Eave Heights** if different from main roof eave elevation [Dimensions].
4. Set the **Eave** and **Rake Overhangs** [Dimensions].
5. Set the roof **Slope(s)**. In cases where the roof section is non-symmetrical, use Rafter Lengths rather than Slope [Dimensions].

Repeat this process until all roof sections are completed.

**Step 6  Adding Digital Images**

When creating a roof estimate, it is a good idea to include digital images with your estimate. Digital images will provide additional detail about the roof system and the areas that need to be repaired.

To add **digital images** click the **Images** button in the upper right-hand corner. This will bring up the Digital Images Window. Click **Load Images** in the bottom right-hand corner of the digital images window. Locate and select the desired images on your computer. (You can select multiple images by holding down the Ctrl key). Once images have been added to the Digital Images window, you can modify their description, date taken, and several other image properties.

To **annotate** directly onto an image, click the **Image Annotation** icon.
You can also place a digital image reference within your Sketch. These references can be used to show where each photo was taken in relation to the building structure. In the example below we have placed an image reference in Sketch for the Left Elevation, Front Elevation, Garage Elevation, and Entry. The Sketch image Reference is the camera icon that you see in the Sketch workspace. To activate the panel and reset the estimating windows palette to the left, use the keyboard shortcut CTRL+SHIFT+R.

To add the image reference in Sketch, Click the desired photo on the left hand side of the screen. Then, move the cursor over the Sketch workspace and Click on the location you want to place the Photo Reference.