Revu Tutorial: Measurements

Revu includes the Measurements tool, perfect for getting takeoffs from a PDF electronically. Measurement options include length, area, perimeter, diameter, angle, radius, volume, counts, and cutouts.

To begin using the Measurements tool, click the ✎ icon in the toolbar or use the keyboard shortcut "Alt + M".

There are three basic steps for using the Measurements tool:

Step 1 – Calibrate the Measurements tool
Step 2 – Select Measurement type
Step 3 – Measure the PDF

Step 1: Calibrate the Measurements tool

Calibrate sets the scale of the PDF. If the scale of the PDF is already known, enter the scale in the boxes provided. You can even use decimal values (1/8" = 0.125, ½" = 0.5, etc.). The unit drop down list determines the units in which the measurements will be reported. Precision determines the exactness of the data and ranges from .0001 to 1.

If you do not know the scale of the drawing, click the **Calibrate** button. You will be prompted to click two points on the PDF of a known length.
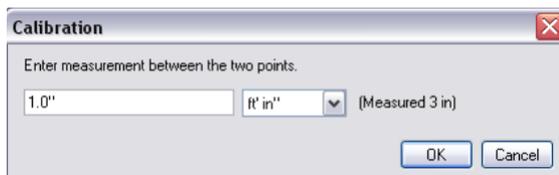
After clicking the two points, the Calibration dialog will appear. Enter the known length that this measurement represents, then click **OK**. Your PDF is now calibrated.

Subsequent measurements made after calibrating will be based on the scale defined by the calibration. Check the box next to **Store Scale in Page** if you want to save this calibration when you open this drawing in the future.

*Note: If you change the scale, click the **Recalculate** button to reset all the measurements to the new scale.*
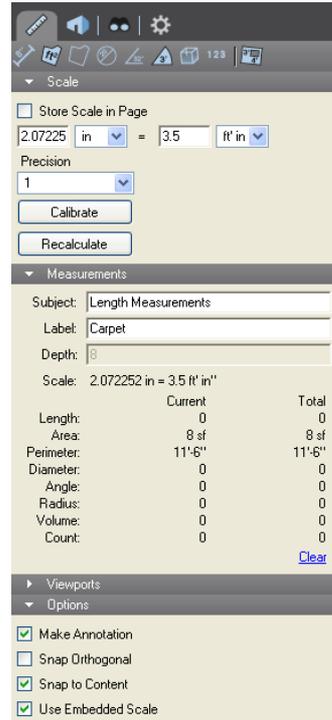
Step 2: Select Measurement Type

Click one of the icons at the top of the Measurements panel to select the measurement type. Revu allows you to measure length, area, perimeter, diameter, angle, radius, and volume, and also includes a counter and a cutout tool.

Step 3: Measure the PDF

With your mouse, click the points on the PDF to measure the following:

Length. Click the starting and ending point to measure length.

Area. If the area is rectangular, click all four corners of the area or click and drag a rectangle to measure. If it is not a rectangle, click all the points of the area, then double-click the last point to display the measurement.

Perimeter. Perimeter works the same way as Area.

Diameter. Click and drag the circle to the correct size. Release the mouse button to display the measurement.

Angle. Three mouse clicks are needed to calculate an angle. In the example to the right, the numbers show the clicks of your mouse.

Radius. Click three points along an arc or circle to measure the radius. In the example to the right , the clicks are numbered along the curve of the circle.

Volume. Volume works the same way as area. Simply enter the depth to calculate the volume for the selected area.

Cutout. Cutout works the same as Area, but is used when there are parts of the Area (e.g. windows, doors) that need to be removed from the total of an area measurement.

Counter

The Measurements tool includes a counter that allows you to select a symbol to represent items within the drawing that you wish to count. These symbols are then represented in the Markups list as a single line item with a grand total shown.

To begin counting, select the Counter icon at the top of the tab. Within the Measurement Properties tab, select the color, style, opacity and scale of your symbol. To give the symbol a unique name, type the name in the subject field. Then click the locations on the PDF to be counted. *Note:* If you get interrupted and need to come back to your count, simply right-click on one of the symbols and select **Resume Count**.

Within the Markups list you can access these symbols— and even change their properties, if necessary. This will update all the selected symbols on the PDF at one time. (See the Markups List tutorial).
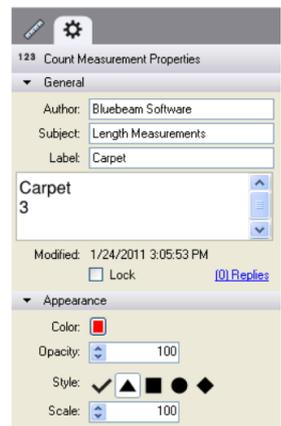
Keeping Track of Measurements

Giving your measurement a title within the Label box lets you customize your measurements and keep track of them within the Markups list. Each measured amount is listed in the Comments column. You can copy these quantities by selecting the measurement in the Markups list and right-clicking the measurement total.
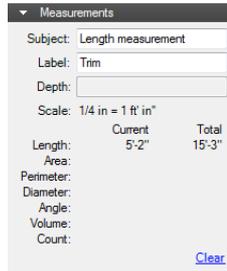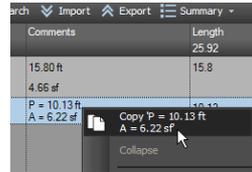
Selecting **Copy** allows you to paste into any other document.

Notice that the Measurements table located in the tab will update to show the Current measurement and the Total measured for each specific type. You can also do a quick sum of specific measurements by multi-selecting them on the PDF.

Show All Measurements

If you need more than one measurement type for an annotation, you can select **Show All Measurements** in the Properties tab after the measurement is selected. This is available for any Area, Volume or Radius measurement and it will show all applicable measurements visually on the drawing and in the Markups list. For instance, if this is applied for Area, it will show both the area and the perimeter for that measurement.
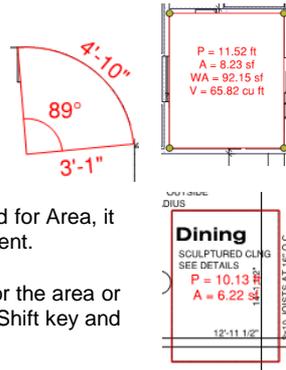
In case the caption text appears in an undesirable location for the area or volume measurement, you can move it by holding down the Shift key and dragging it to a new location.

Curved Measurements
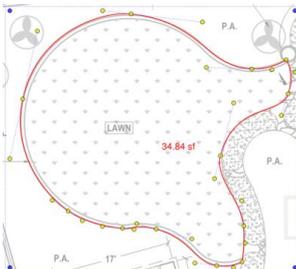
Drawings with oddly-shaped objects can be measured by adding curves to the annotation of a Perimeter, Area, or Volume measurement. First, create a rough shape of the object you are trying to measure by holding down the Control key as you drag your mouse across the screen to select points outlining the object. Then, fine-tune your measurement by adding/removing control points and adjusting the handle bars. The caption text will adjust according to the change of the measurement.

Options

The Options area of the Measurements tab allows you to turn certain usability options on and off. By default, the Make Annotation box is checked. This option tells Revu to display annotations/markups for each measurement you make.

If you uncheck the Make Annotation box, you will not see any markups on the PDF after making a measurement.
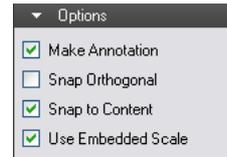
Snap Orthogonal will snap the measurement line in 45° increments when taking a measurement.

Snap to Content will snap the measurement to line up with underlying content (lines in a PDF drawing for example) to give you the most accurate measurement.

Use Embedded Scale will read the scale embedded within the PDF document and use that scale for all measurements.

Viewports

Viewports allow you to designate areas within the PDF drawing that are set to a different scale.

To begin, click the **Add** button within the Viewports window. You will be prompted to select the region within the drawing that should use the new scale. With your mouse, click and drag a rectangle to designate the region.

Next, select a name for your Viewport.

Then, click **Calibrate** to set the scale for the Viewport.

You may add as many Viewports within a single drawing as you would like. Each Viewport added will be displayed by name in the Viewports list.

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Hagen Business Systems
http://www.bluebeam.com/us/partners/network/hagen/
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