Author: MaryLou White   **Level:** Beginner   **Download:** addoperation.zip   **Version:** 1.5
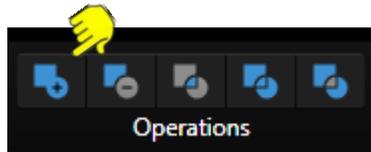
In this tutorial, you will learn how to combine multiple images into one using the Add operation. You will also be introduced to the Transform panel which is useful when a specific size is needed.

THE ADD OPERATION

LET'S GET STARTED

Affinity Designer has some excellent **Operations** tools that allow you to add objects together, subtract parts from objects, divide objects and more. The **Operations** tools are located on the **Context** toolbar. They are only active when you have objects where you can use these tools. We will take a look at the **Add Operation** in this basic tutorial.

NEW DOCUMENT

Select **File\New** on the top menu and create a new document in a size of your choice. 600 by 600px works well. You may work on either a white or transparent background.

Download and unzip the **addoperation.zip** file. It contains an .afdesign file with 4 vector bows that you may wish to use later in the tutorial.

THE TRANSFORM PANEL

Before we start, let's take a quick look at the **Transform** panel located on the lower right side of the screen. If you do not see the panel, select **View\Studio** on the top menu, then select the **Transform** panel from the fly-out menu.

Notice the tiny icon on the far right side of the panel. This is a link that allows you to control the width and height of an object individually or together. Click the link to toggle between locked and unlocked.

When the **Width** and **Height** are linked as indicated by the link in the first image (shorted extended lines), if you change one value, the other will change proportionately. In the second image, notice the extended lines on the link are gone. This indicates that the values are not linked and each value can be changed independently.

This is a great tool to use when you need to make an object a specific size. Instead of trying to drag it to the correct size, click the link/unlink icon to unlink the values and type in the desired width and height.

THE ADD OPERATION

The **Add** operation allows us to add two or more objects together. This is a "destructive" action in that once the object have been added together, they become a new single object.
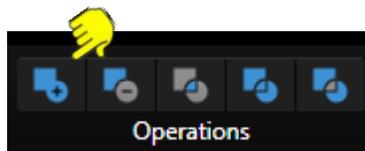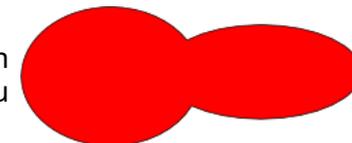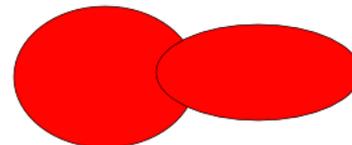
On the **Color** panel, set the **Stroke** color to black and the **Fill** color to red. On the **Stroke** panel, set the **width** to 0.5 pt.

Select the **Ellipse Tool** 🔵 from the left toolbar and draw out a small ellipse.

Then draw second ellipse next to it.

With the **Move Tool** 🔖 drag the second ellipse partially over the first ellipse.

Use the **Move Tool** 🔖 to drag a box around the two objecs to select them, then click the **Add** icon in the **Operations** box. The two ellipses are now one. You can verify this by looking in the **Layers** panel.

That's it for the **Add** operation. Practice doing this a few times by adding more ojbects to the current object or creat a new object using various preset shapes.   The resulting color will always be the color of the bottom shape. When you're finished, select all the objects with the M**ove Tool** and press the delete key to delete them (or save them if you wish).

BONUS PROJECT

Now that you understand how the **Add** operation works, lets have some fun with it. We're going to use some basic shapes to make what looks like a little hand-stitched felt Christmas tree ornament.

On the **Swatches** panel, set the **Stroke** color to black, and the **Fill** color to white.
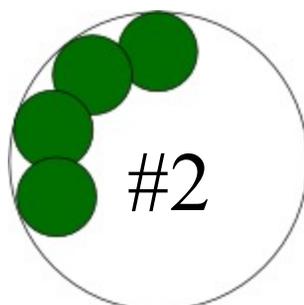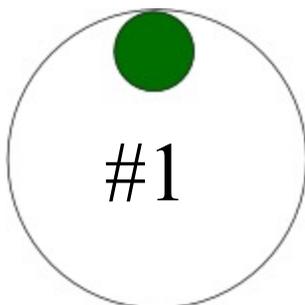
Select the **Ellipse Tool** 🔵 from the left toolbar. While holding down the **Shift** key, drag out an ellipse that is **300x300px** (or use the **Transform** panel to type in the size.) We will use this ellipse as a template for placing the smaller green ellipses in the next few steps.

Deselect the **Ellipse**, then change the **Fill** color to a pretty green. Draw out an ellipse that's about **80 x80px.**

Select the **Move Tool** 🔖 and place the small ellipse on top of the larger one as shown in **#1**.

Right-Click\Copy, then **Right-click\Paste**. Place the small ellipses so they are inside the large ellipse and overlapping somewhat as in **#2**.

Continue adding ellipses until you have a total of 10 overlapping ellipses as in **#3**. Try to space them evenly apart and just inside the edge of the larger ellipse.
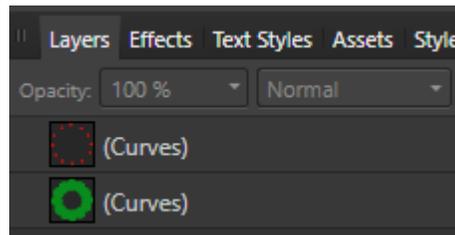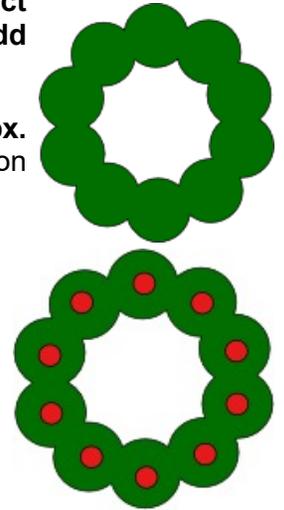
We no longer need the large ellipse. Select it with the **Move Tool**, then press the **Delete** key.

Using the **Move Tool**, drag a box around all the small ellipses (or Press **CTRL+A** to **Select All**). Notice that the **Operations** tools on the **Context** toolbar are activated. Click the **Add** operation to add all the ellipses together into one object.

Deselect the green object and change the **Fill** color to a nice red. Draw a red **Ellipse** 2**5x25px.** Copy and Paste the red ellipse 9 times. Place the red ellipses in the center of each section of the wreath as shown.

Hold down the **Shift** key and use the **Move Tool** to select all the red ellipses, then **Add** them together.

Objects do not have to be overlapping to add them as a single object. If you look in the **Layers** panel, you will see there are only two objects even though we've made 20 objects.
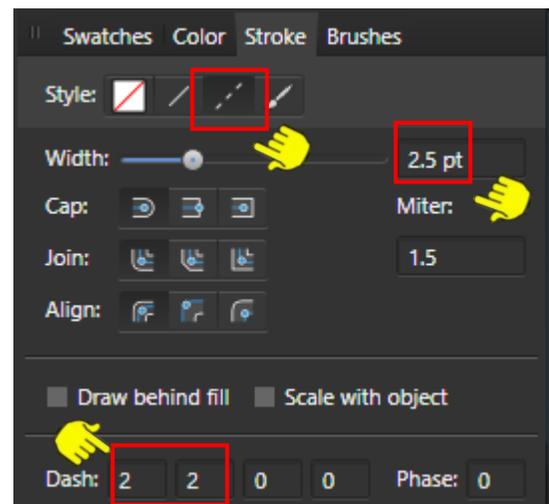
DECORATING THE WREATH

Click the wreath with the **Move Tool** to select it. The **Fill** color automatically changed to green. Let's give the wreath a bit of "texture". Click the small green dot under the word **Opacity** on the **Color** panel. The text will change to **Noise**. Move the slider bar to the right to add noise to the wreath.
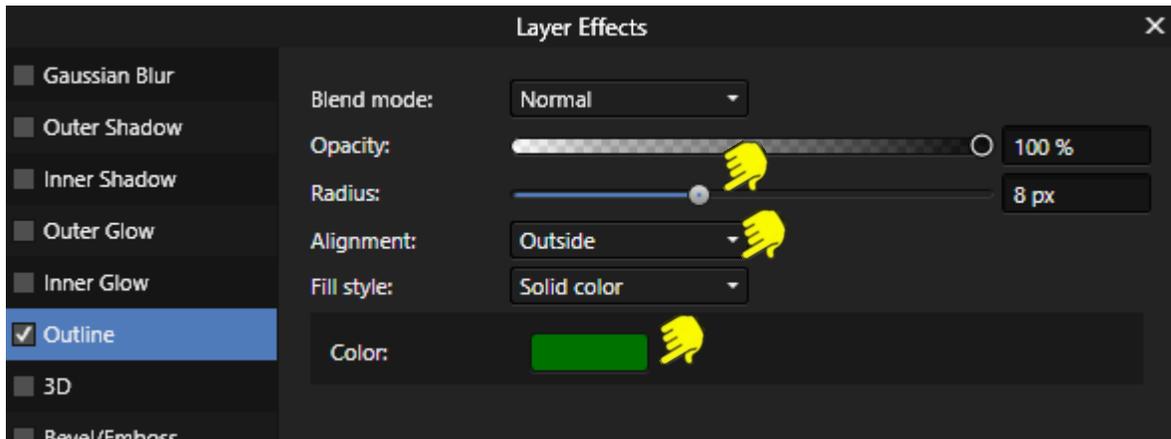
Time to make some stitching! Change the **Stroke** color to **Red**. Set the **Stroke Style** to the dashed line, **Width** to 2.5 and change the first two values in the **Dash** to 2. This should make a nice line of dashes around the wreath.

With the wreath still active, Select the **Effects** panel, and check the **Outline** box. Click the cog icon on the right side to open the **Outline** options.

Set the values as shown below.   Change the color to green by clicking the Color box. This will open the **HSL Color Wheel**. Pick a green that is closest to the color of your wreath.

Open the **ml-bows-001.afdesign** file. You should now have two files open. The bar just above the workspace will indicate which document you are seeing.

Use the **Move Tool** to draw a box around a bow of your choice to select it. **Right-click\Copy**.

Switch back to the document with the wreath. **Right-click\Paste.** You now have a bow that you can color or edit to suit yourself. When finished, move the bow into place on the wreath.

You can try various effects on your wreath such as shadows, 3D or whatever suits your taste.

This would make a fun project for Christmas, especially if you have little children. Print out several pages of wreaths on heavy paper, then cut them out. Glue them back to back with a cord inbetween so you can hang them on the tree.

Enjoy!