Multiple Openings: 125

Introduction to Grouping

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Introduction to Grouping

Grouping is a process that locks items together so that the software treats them as one item.

In Course 121 on Aligning & Spacing Openings, there was a project that used Grouping to help with an alignment problem. Another aspect of this process is that overlapping items can be grouped to generate a new outside shape. There are practical design ideas that flow from this aspect. The best way to explore the aspects of Grouping is through simple projects.

Project 1—Alignment

One practical use for **Grouping** is to lock openings together so that they are not accidentally nudged out of alignment as work continues.
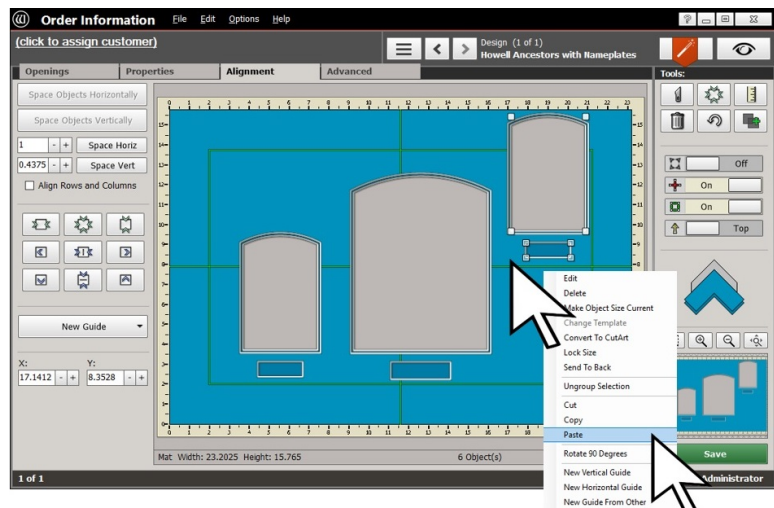
The large opening and its nameplate are aligned.

The small opening and its nameplate have just been aligned using the **Alignment** buttons.
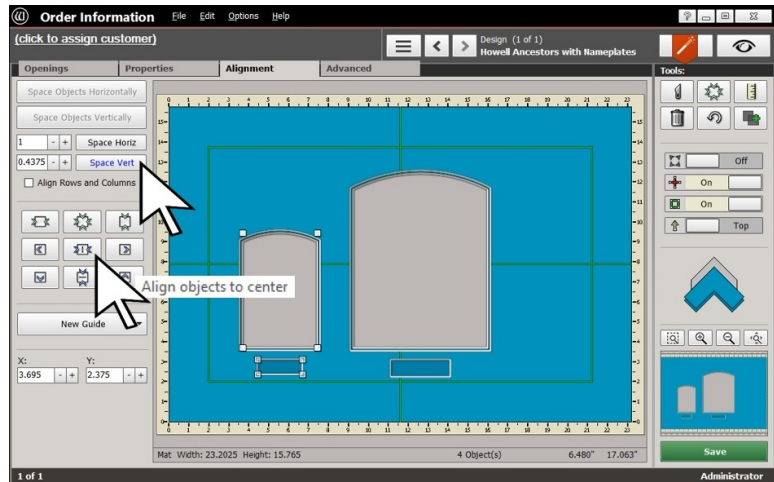
The project requires another small opening and nameplate on the right side of the design.

‣ Select both the small opening and its nameplate.

‣ Copy and Paste to generate a duplicate pair of openings for the right side of the design.
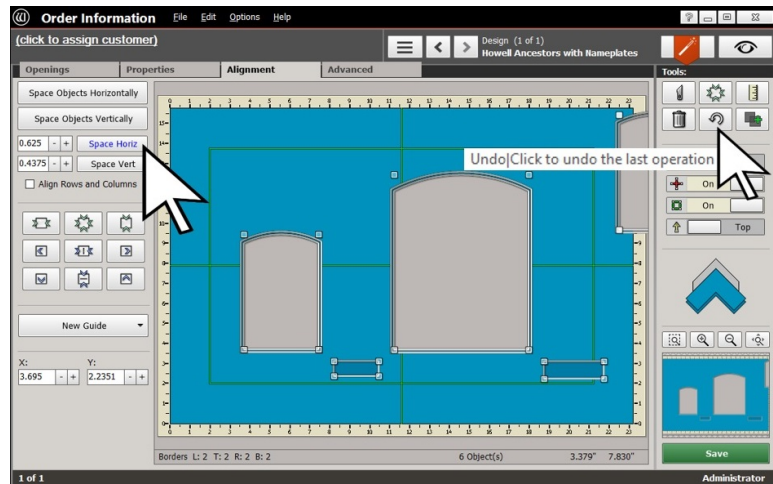
Why We Need Grouping

In the final arrangement, we want the openings 0.625 inch apart with their nameplates centered underneath each opening.

It appears as if we could select all the openings, set the Distance in the **Space Horizontally** field, click the button, and have exactly the arrangement we envision.

Note: this is what happens, but this is NOT what we want.

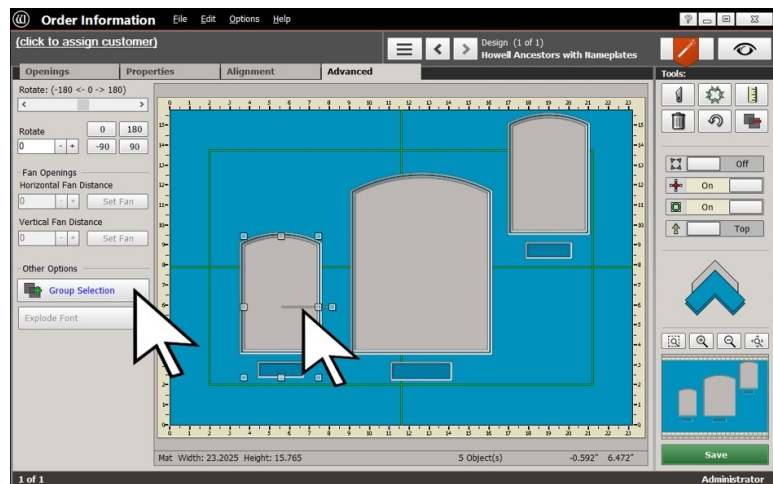‣ Click the **Undo** button at the top right to return the arrangement as it was.

Grouping

The answer is to lock each opening and its nameplate together so that the software will treat it as one item.

This is called **Grouping**. There are 3 ways to Group openings.

They all begin by selecting the openings to be grouped.

Note: the opening and its nameplate on the left are selected.

‣ Click the **Advanced** tab at the top.

‣ Click the **Group Selection** button under **Other Options** at the left.

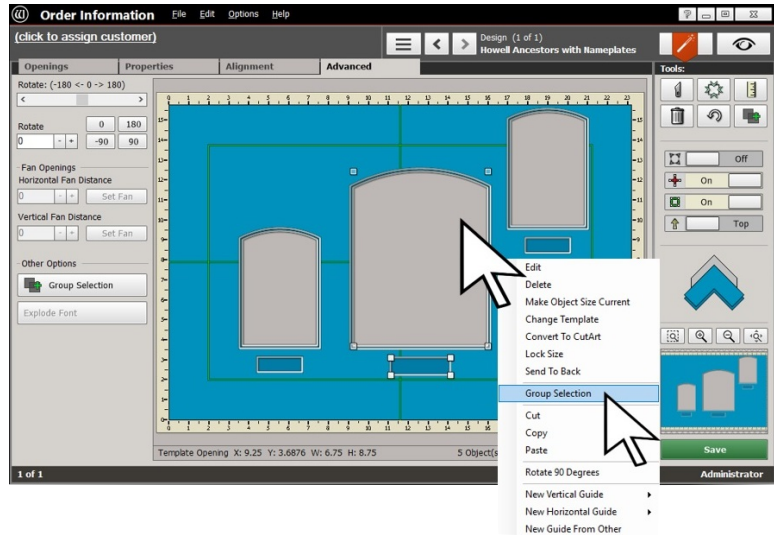The openings will become grouped.

To illustrate the second method, the large opening and its nameplate are selected.

‣ Right-click on the selected openings.

‣ From the menu that appears, click **Group Selection**.
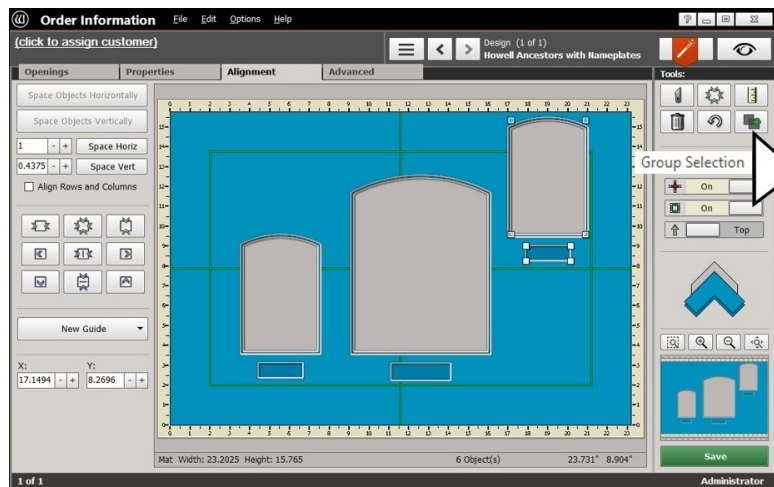
The openings will become grouped.

For the third method, the opening at the right and its nameplate are selected.

‣ Click the **Group Selection** button under **Tools**.

Note: it is the one at the right of the bottom row with the green plus sign.

The openings will become grouped.

Aligning the Groups

Now the **Spacing and Alignment** buttons will work as we originally thought.

‣ Select all 3 groups.

‣ Set the **Distance** in the **Space Horizontally** field to 0.625 inch and click the button.
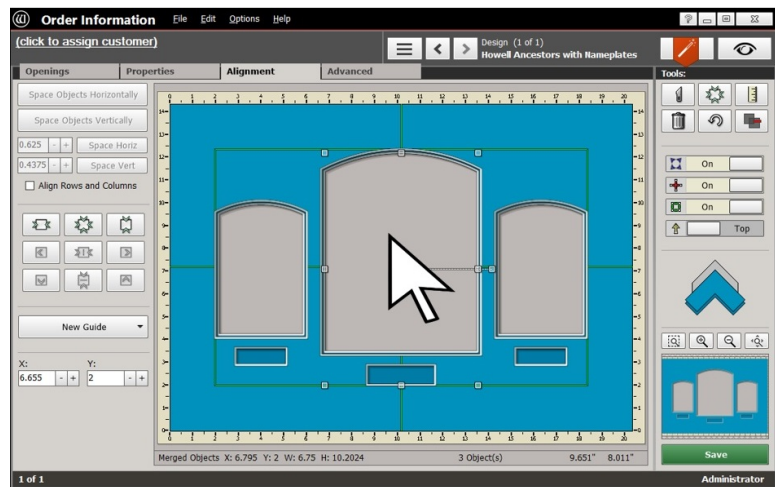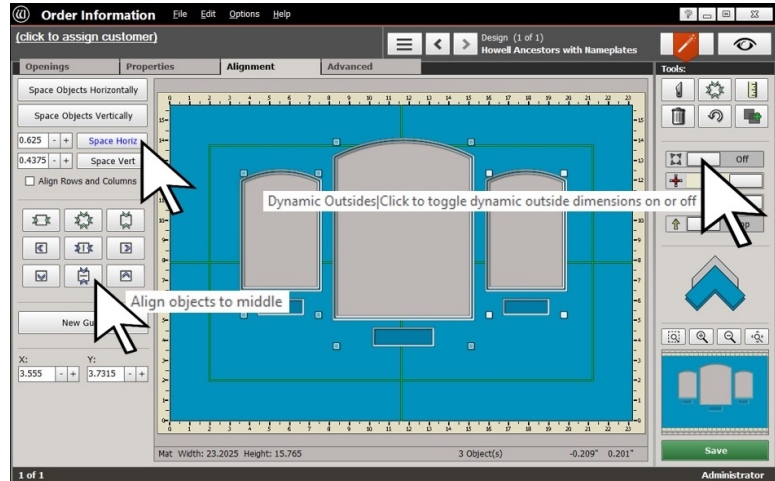
The groups will be spaced correctly.

‣ Click the **Align Objects to Middle** button.

The groups' middles will be lined up.

Manual Adjustments

In this illustration, the arrow key was used to raise middle opening-so that the nameplates are more in line.

This is certainly not a requirement, but it shows how individual touches can be easily made.

Project 2—Making a New Shape

There is a template named **Newspaper** that makes this kind of shape, but it cannot make every possibility.

On the left side of this opening, we need a rectangular protrusion that is 1 inch down from the top, 2.5 inches high, and extends 1.25 inches to the left.

Note: there is an extra opening in the design that will become this protrusion.

It is 2.5 inches high and 3 inches wide. Its width does not matter, though.

In preparation for the small opening's placement, there is a horizontal guide 1 inch down from the top of the large opening. There is also a vertical guide 1.25 inches away from the left.

The small opening is snapped into place with its top against the horizontal guide and its left against the vertical guide.

The rectangular protrusion is now the correct size and in the correct place.
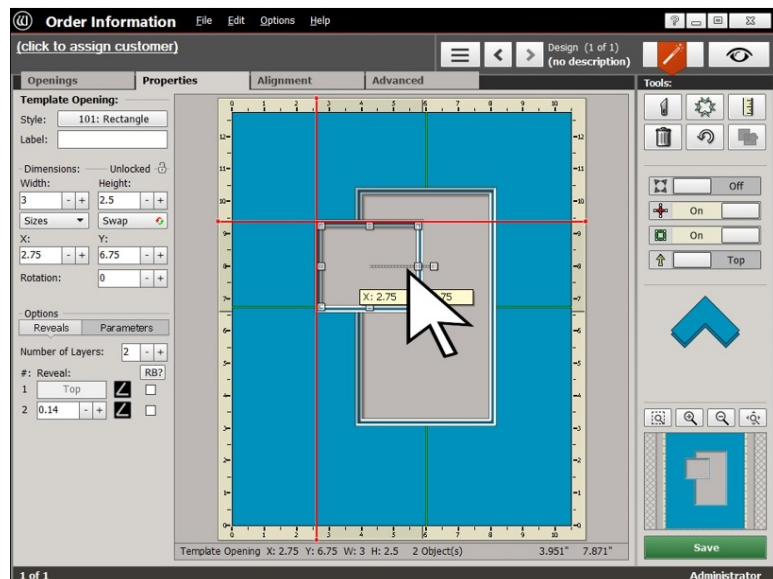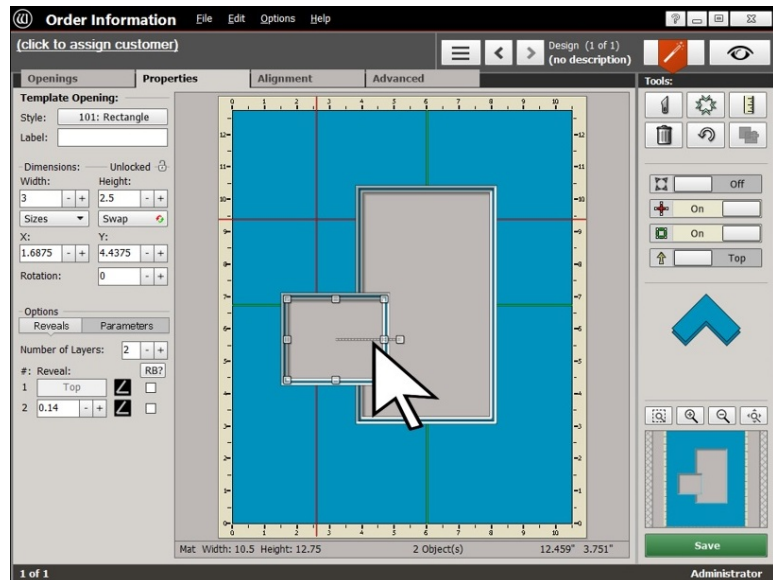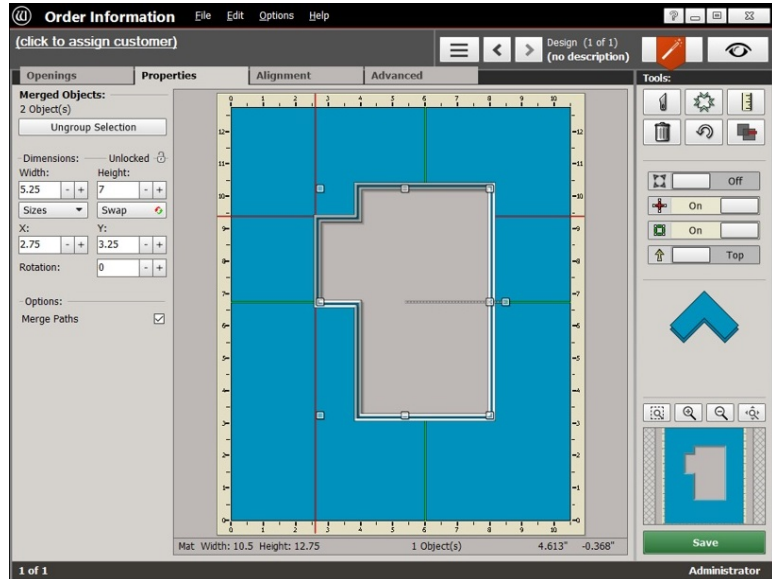
Grouping the Two Openings

Select the 2 openings and **Group** them using any of the 3 methods.

The illustration of the results shows the second effect of **Grouping**. The outer perimeter of the overlapping shapes is the new shape.

Note: in this example, this new shape is for the purpose of presenting an oddly shaped picture.

However, this opens decorative possibilities, too.

Project 3—A Decorative Addition

Below this rectangular opening there will be a round commemorative button.

Rather than cut a separate circular opening for it, there will be a ribbon shape draping down from the center of the rectangular opening, and the button will be mounted in that space.

The plan is to center the ribbon opening with the rectangular opening, decide how far the ribbon needs to extend below the rectangle, and make sure the ribbon overlaps the rectangle.
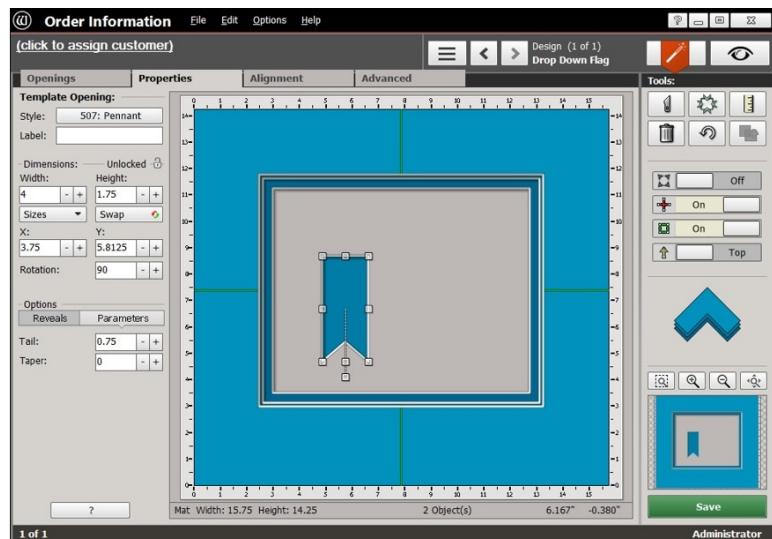
Then the 2 openings will be grouped—taking advantage of the effect we saw in the previous example.

This time Grouping will be used for purely decorative purposes.

Aligning the Ribbon Opening

The rectangular opening is centered in the work area. The **Borders** are set.

Dynamic Outsides is de-activated so that the outside size will remain constant.

‣ Snap the ribbon opening to the vertical center of the green **Border** lines.

‣ Then drag it or use the **Arrow** keys to move it to its final vertical position.
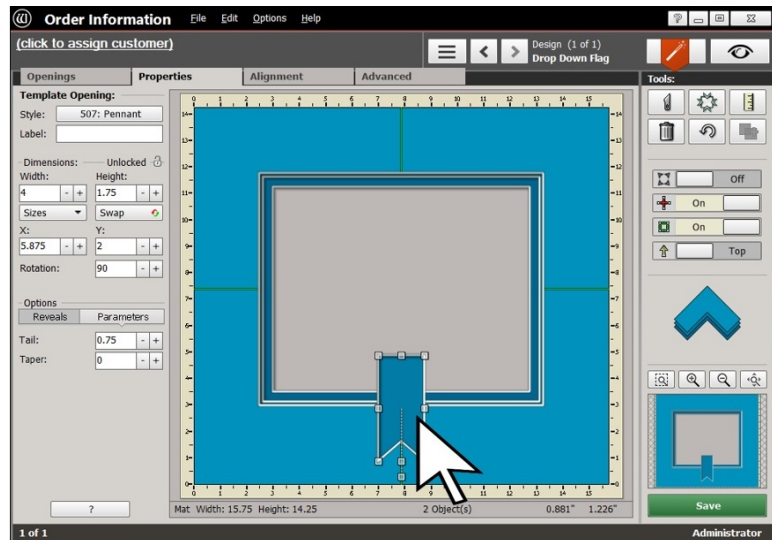
Grouping the Two Openings to Create the Decorative Shape

‣ Select the 2 openings.

‣ Group them using any of the 3 methods you choose.

The design is ready to cut.

Ungrouping

Grouped openings often need to be separated. This can be done at any time.

‣ Select a grouped item.

In all 3 methods of Grouping, the **Group Selection** button changes into the **Ungroup Selection** button.

In this illustration, see that the **Group Selection** button at the top right under **Tools** is now the **Ungroup Selection** button. It now has a red minus sign instead of a green plus sign.
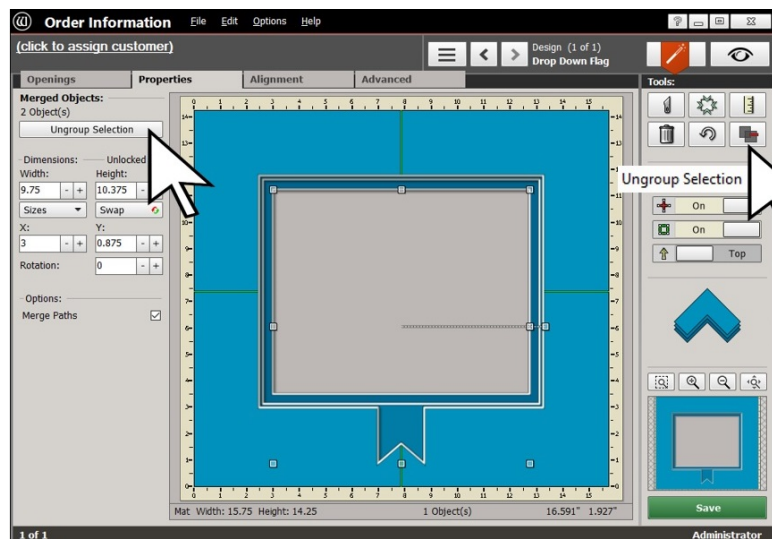
There is an **Ungroup Selection** button under the **Properties** tab at the top left, too. You will also see an **Ungroup Selection** button under the **Advanced** tab, and in the right-click menu.

Things to Remember

The idea of gathering several items so that the software treats them as one seems almost trivial. But the ability of aligning grouped sub-assemblies simplifies so many multiple opening projects.

★ Remember all the places in the software where you can **Group** the selection. It is so useful so often that it's not just under the **Advanced** tab anymore.

★ The striking aspect of **Grouping**, obviously, is when overlapping items become one shape. Creative framers can already imagine all the shapes that can be formed with grouping. Grouping will also be useful in forming functional shapes.

★ There are many opening shapes available in the included **Template Library** and **CutArt™** folders that you can combine to form new shapes using **Grouping**.

★ And whether the project uses **Grouping** for artistic or functional projects, **Ungrouping** is important to make adjustments and refine the shapes.