

# Microsoft Visio – Working with Shapes

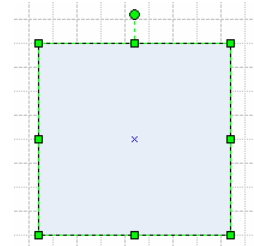


## Working with Visio Shapes

Shape is the general term for the objects you will find on a stencil and objects created using the drawing tools. These include geometric shapes such as rectangles, triangles and ellipses as well as more specialised shapes.

### Creating a shape

- Locate the required shape on the stencil.
- Click and hold down the mouse button on the shape.
- Drag it over to your page.
- Let the mouse button go when you have positioned the shape in the preferred location.
- The shape will appear with 8 square (**Resize**) handles around the outside and 1 round (**Rotate**) handle at the top.
- These **Selection Handles** tell us the shape is active and able to be edited.



### Selecting shapes

Shapes must be selected before any action such as copying, deleting and formatting can go ahead.

#### To Select a Single Shape

- Click on the shape with the left mouse button.
- The selection handles described above will appear.

#### To Deselect A Shape

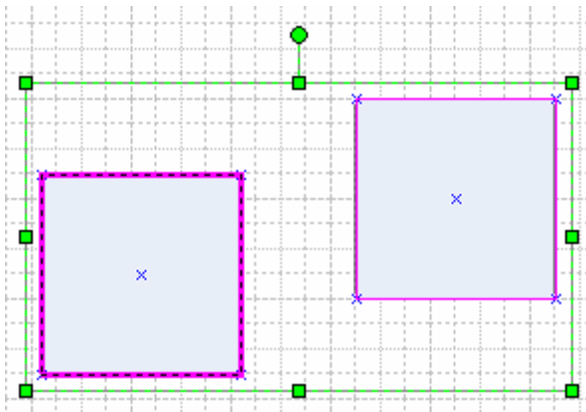
- Click on any blank area of the page.

#### To Select Multiple Shapes Using the Keyboard

- Select the first shape.
- Hold down the **SHIFT** key on the keyboard and select the second shape.

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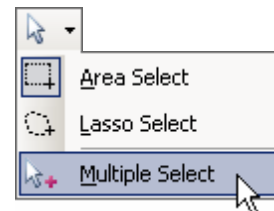
- The selection handles now form a rectangle that surrounds both of the shapes:



- Further shapes can also be selected using the same method.
- While still holding down the **SHIFT** a selected shape can be deselected by clicking it for a second time.

## To Select Multiple Shapes Using the Multiple Select Tool

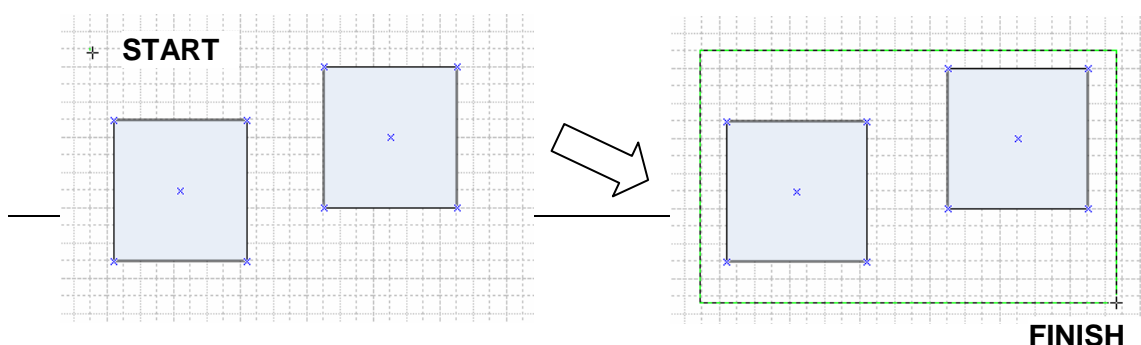
- Click the drop-down next to the Pointer Tool:
- Select the **Multiple Select** option.
- Click onto all the shapes to be selected, one after the other.
- Click a shape for a second time to deselect it.
- The **Multiple Select** option needs to be deactivated when it is no longer needed.



## To Select Shapes Using the Area Select Tool

This method involves dragging a selection box around the shape or shapes to be selected.

- Starting above and to the left of your shapes, click and drag your mouse towards the bottom right of your shapes:



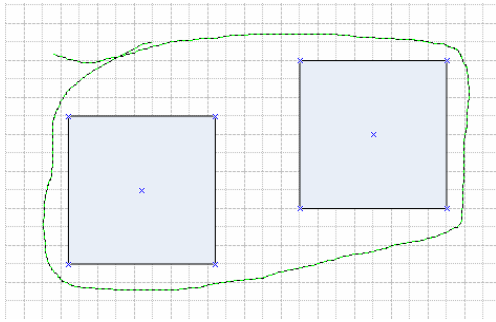
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- Make sure all parts of the required shapes are within the selection box.
- Release the mouse button when you are happy with your box; if not, click away so nothing is selected and try to drag the box again.

## To Select Shapes Using the Lasso Select Tool

This method involves drawing a selection 'lasso' of any shape around the shape or shapes to be selected.



- Click the Pointer Tool drop-down and select **Lasso Select**.
- Click and drag with the mouse to start drawing the lasso.
- Ensure the shapes to be selected are fully within the lasso.
- If possible overlap the start and end points of the lasso (although this is not always essential).

*Both the Area Select and the Lasso Select methods can be used in conjunction with the Multiple Select method in order to easily select multiple shapes which are positioned in different parts of the drawing page.*

## To Select All Shapes on a Page

- In the **Edit** menu, choose **Select All**.

**OR**

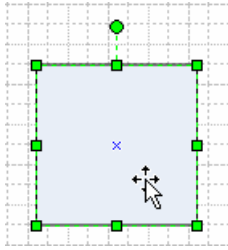
- Press **CTRL+A**.

## Moving Shapes

- Point your mouse at the shape to be moved.

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- Click and hold down the mouse button.
- Drag the shape to the new location.
- Release the mouse button.

## Deleting Shapes

- Select the shape to be deleted.
- Press the **Delete** key.

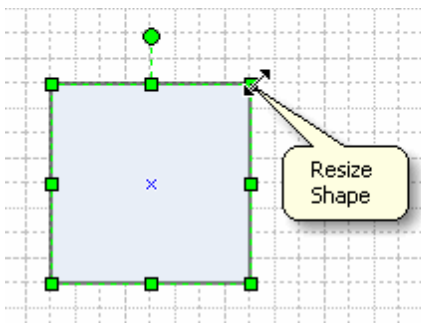
**OR**

- Use Delete  on the formatting toolbar.

## Resizing Shapes

### Resizing a Shape with the Mouse

- Select the shape to be resized.
- Move the mouse pointer to the required **Resize** handle:



- Drag the handle until the shape is at the required size.
- Release the mouse button.

Click and drag on any corner when resizing to maintain the shape's height-to-width proportions.

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## Resizing a Shape with the Size & Position Window

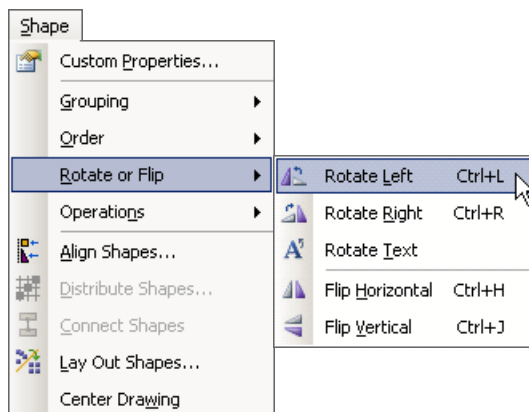
- Select the shape to be resized.
- From the **View** menu, select **Size & Position** – the following window will appear in the bottom left of the screen:

Size & Position	X	85 mm
	Y	215 mm
	Width	40 mm
	Height	40 mm
	Angle	0 deg
	Pin Pos	Center-Cent

- Increase/decrease the **Width** and **Height** values to change the size of the shape.
- The **X** and **Y** values refer to the position of the shape on the drawing page.

## Rotating Shapes

- Select the shape to be rotated.
- Select **Rotate Left** or **Rotate Right** from **Rotate or Flip** in the **Shape** menu:

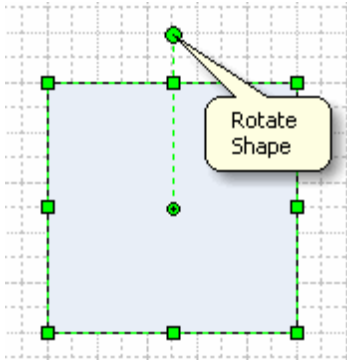


**OR**

- Select the shape.
- Use the **Rotate** handle to drag the shape round as far as necessary:

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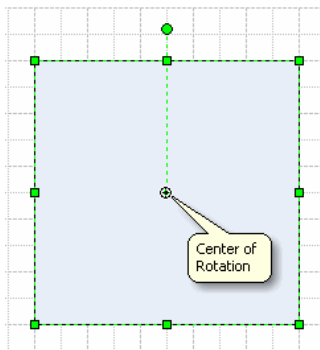
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## Changing the Centre of Rotation

The centre of rotation is normally positioned in the centre of the shape and defines the point at which the shape will rotate. The centre of rotation can be moved at any time.

- Select the shape and move the mouse pointer over the Rotate handle (see above).
- The **Centre of Rotation** will appear in the centre of the shape:



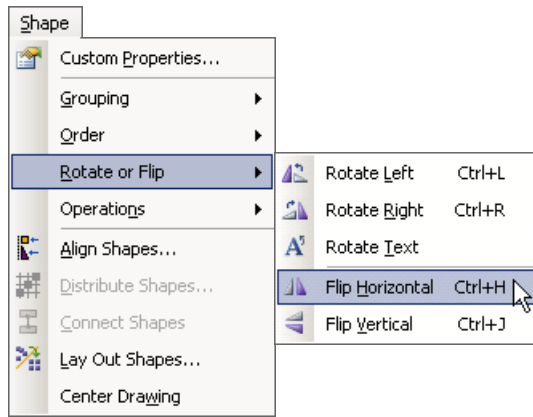
- Move the mouse over the centre of rotation and click & drag it to another position.

## Flipping Shapes

- Select the shape to be flipped.
- Select **Flip Horizontal** or **Flip Vertical** from **Rotate or Flip** in the **Shape** menu:

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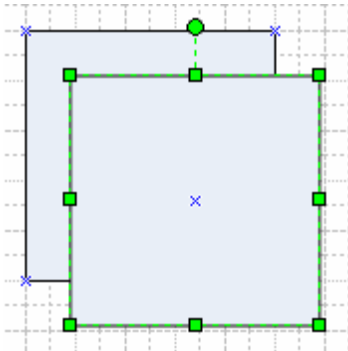
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## Duplicating/Copying Shapes

### Duplicating a Shape

- Select the shape to be duplicated.
- Select **Duplicate** from the **Edit** menu, and a copy of the shape will appear directly beside the original:



- **CTRL+D** will do the same.

### OR

- Hold down the **CTRL** key and move the shape to its new position, a copy is created.

### Copying a Shape between Pages

- Select the shape to be copied.
- Select **Copy** from the **Edit** menu.
- Move to the page where the copy is required.
- Select **Paste** from the **Edit** menu.

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## Moving a Shape between Pages

- Select the shape to be moved.
- Select **Cut** from the **Edit** menu.
- Go to the page where the shape is required.
- Select **Paste** from the **Edit** menu.

**OR**

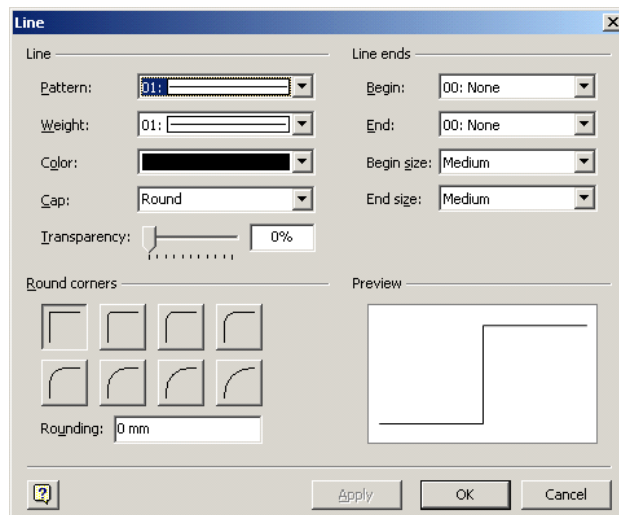
- Use Cut , Copy  and Paste  from the standard toolbar.

## Changing the attributes of a Shape

Attributes, such as line and fill colour, can be changed to alter the appearance of a shape.

### To Change Line (Border) Attributes

- Select the shape for which the line attributes are to be changed.
- Select **Line** from the **Format** menu – the **Line** dialog box will appear:



### **Line**

**Pattern** Changes the style of the line, e.g. dotted, dashed etc.

**Weight** Changes the thickness of a line or a line around a shape.



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<b>Color</b>	Changes the colour of the line or the line colour of a shape.
<b>Cap</b>	Makes the ends of a line either round or square. This may not be visible if the line is fairly thin.
<b>Transparency</b>	This sets the transparency of the line, from 0 to 100.
<b><u>Line Ends</u></b>	
<b>Begin/End</b>	Changes the style of the beginning/end of the line, e.g. adds arrowhead.
<b>Begin/End Size</b>	Changes the size of the beginning/end of line attachments.
<b><u>Round Corners</u></b>	Gives you the option to smooth the corners of the line or shape.

- Choose **OK** to finish.

## **OR**

- Select the shape or line.
- From the formatting toolbar:



Line Colour.



Line Weight



Line Pattern

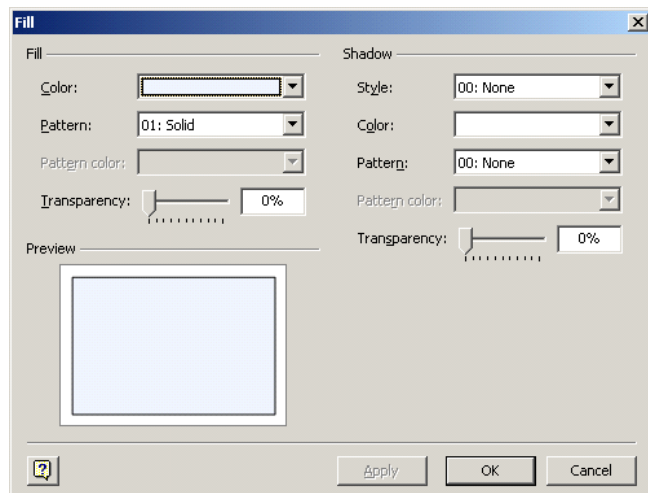


Line Ends.

## **To Change Fill Attributes**

- Select the shape for which the fill attributes are to be changed.
- Select **Fill** from the **Format** menu – the **Fill** dialog box will appear:

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## **Fill**

**Color** Allows the colour of the shape to be chosen.

**Pattern** Allows a pattern to be applied to the fill of the shape.

**Pattern Color** Allows the colour of the pattern to be chosen.

**Transparency** Sets the Transparency of the fill, from 0 to 100.

**Shadow** Some Shadow settings can be set from this section, but the **Shadow** dialog box (from the **Format** menu) gives more options.

- Choose **OK** to finish.

## **OR**

- Select the shape.
- From the formatting toolbar:



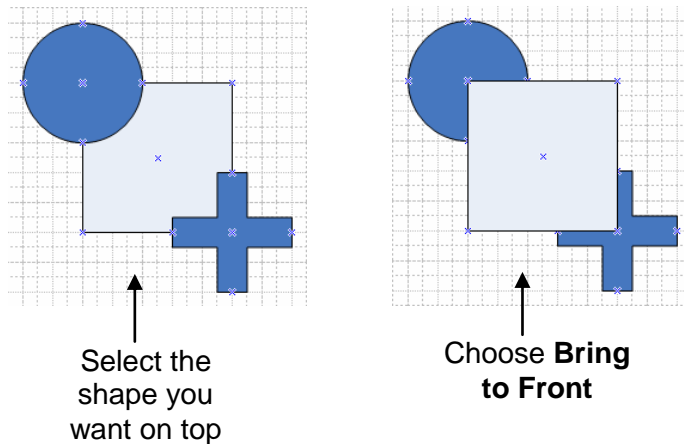
Fill Colour.

## **Stacking Shapes**

When you are working with shapes, you will find that you sometimes need to stack them to get the effect you want. When you stack shapes on top of each other, they will overlap. Visio has commands to move shapes up or down in a stack.

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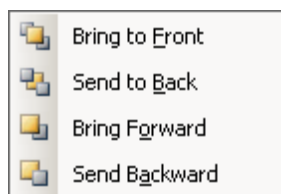
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## Bringing Shapes to the Front/Back of a Stack

The **Bring to Front** and **Send to Back** commands move a shape to the top or bottom of the stack.

- Select the shape you want to move.
- From the **Shape** menu, choose **Order**. The following sub-menu will appear:



- Select **Bring to Front** or **Send to Back**.

## Bringing Shapes Forward/Backward One Level

The **Bring Forward** and **Send Backward** commands move a shape up or down in the stack one level at a time.

- Select the shape you want to move.
- Select **Bring Forward** or **Send Backward** from the **Order** option of the **Shape** menu.

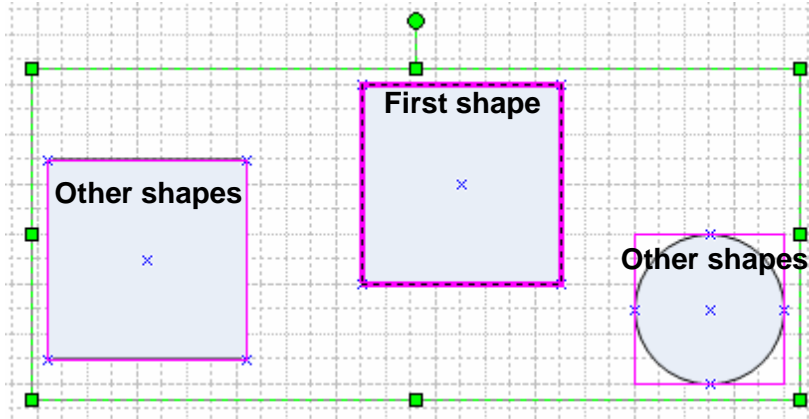
## Aligning shapes

If you have created a number of shapes, you can align the entire group on their left/right borders, their top/bottom border or their centres. You do not have to select and move each shape individually.

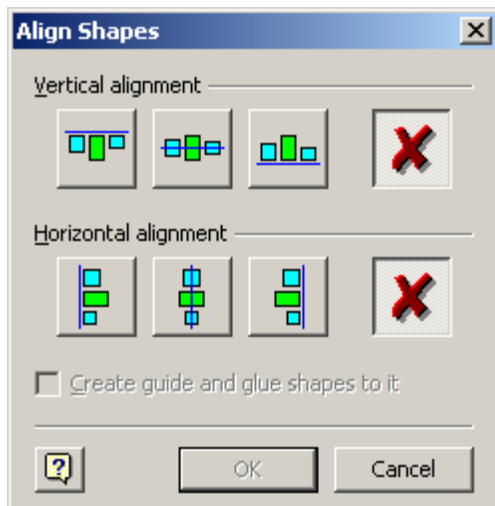
- Select the first shape, the handles will be green. This will be the **master** shape.

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- Select the other shapes using the **SHIFT** key (or the **Multiple Select** option from the Pointer Tool drop-down).
- The green handles will surround all of the selected shapes. The first shape (the master) will now have a thick pink border, while the subsequent shapes selected will have a thinner pink border:



- Choose **Align Shapes** from the **Shape** menu, the **Align Shapes** dialog opens:



- Select the type of alignment you require. The green shape on each of the icons refers to the master shape.
- Click on **OK**.

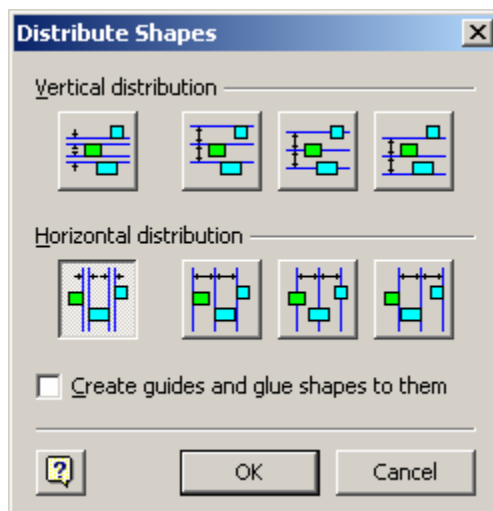
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## Distributing Shapes

If you have created a number of shapes, you can distribute space equally between them.

- Select the shapes you want to distribute space between.
- Choose **Distribute Shapes** from the **Shape** menu, the **Distribute Shapes** dialog opens:

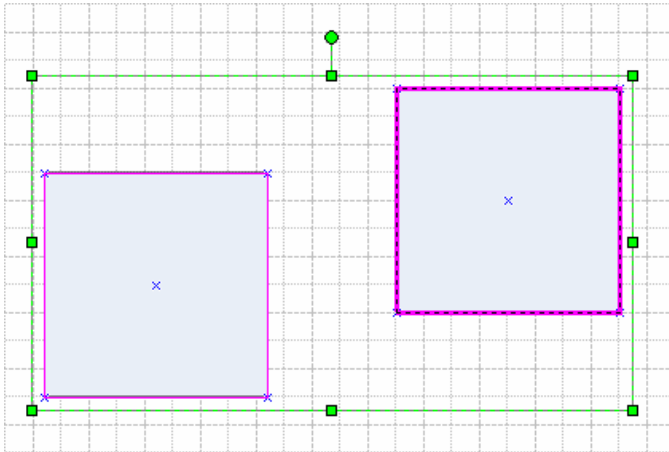


- Select the type of distribution you want.
- Click on **OK**.

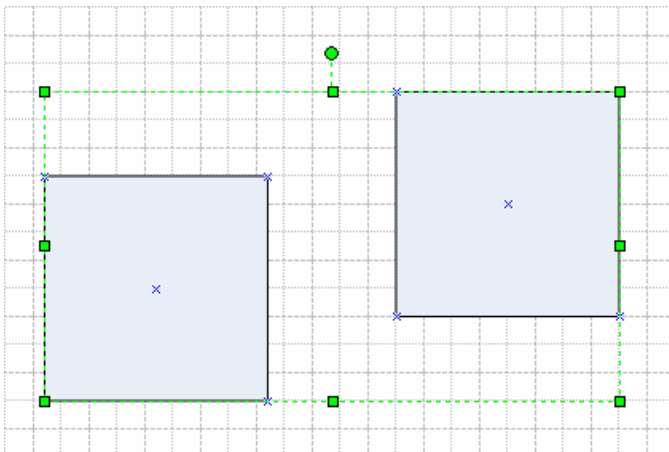
## Grouping Shapes

When you have selected two or more shapes, you can create a group. Once you have a group, any attribute you choose such as shadow or line colour, is assigned to all the individual shapes within a group – as long as it applies (e.g. you cannot have a line with a shaded fill). The grouped shapes all move and rotate as a group.

### Two Shapes Selected – NOT Grouped



### Two Shapes Grouped



## To Group Selected Shapes

- Select the shapes to be grouped.
- Choose **Grouping** and then **Group** from the **Shape** menu.

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## OR

- Press **CTRL+G**.

## To Ungroup Shapes

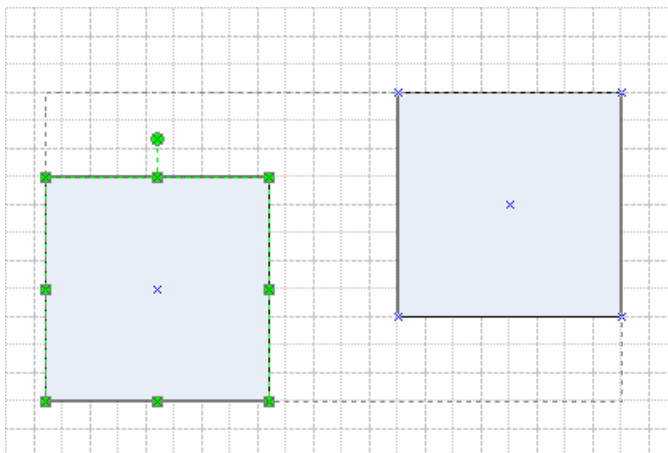
- Select the group by clicking on one of its shapes.
- Choose **Grouping** and then **Ungroup** from the **Shape** menu.

## OR

- Press **CTRL+SHIFT+U**.

## Selecting a Shape within a Group

- Select the group.
- Select the shape you want to alter. When the shape has been selected, its selection handles will contain small crosses.



- Format the shape.
- Or click & drag the shape to move it within the boundaries of the group.
- Click away from the shape to deselect the group when you have finished.