



Microsoft® Office

Visio Essentials



TECHNOLOGY LEARNING CENTER
Bridging the Gap Between Knowledge & Action

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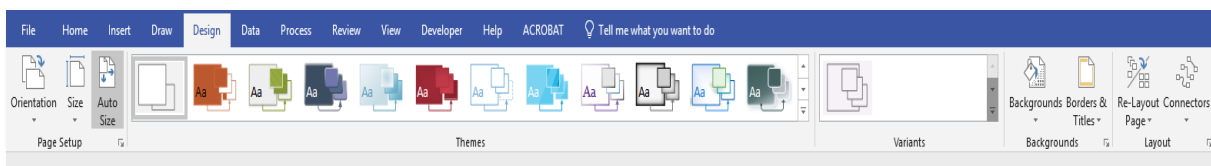
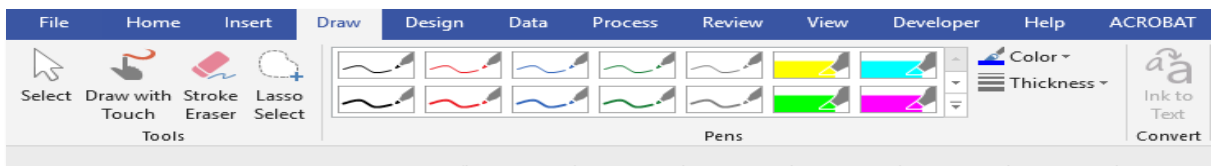
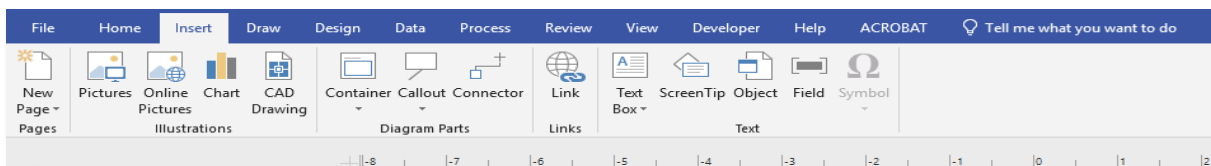
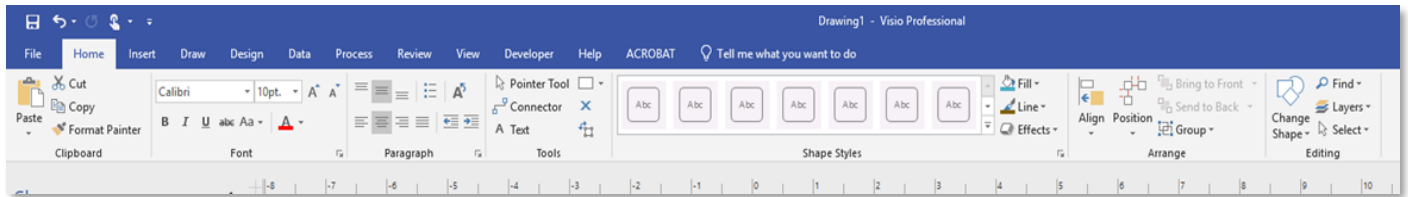
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LESSON 1 THE VISIO INTERFACE

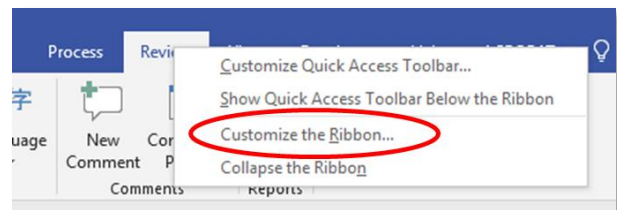
The Visio program provides an easy to use interface that allows users to quickly customize the drawing surface and access the hundreds of shapes and other tools that are a necessary part of any successful drawing

Visio ribbons

Visio professional displays 10 tabbed ribbons each tab includes specific tool groups that can be deployed to change fonts, draw objects, change the orientation or size of the drawing, etc.

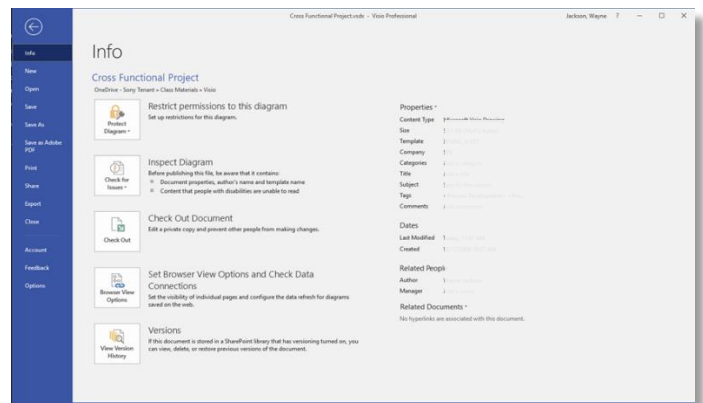
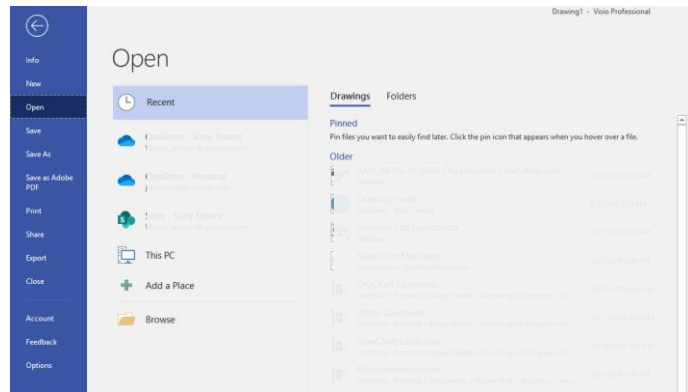
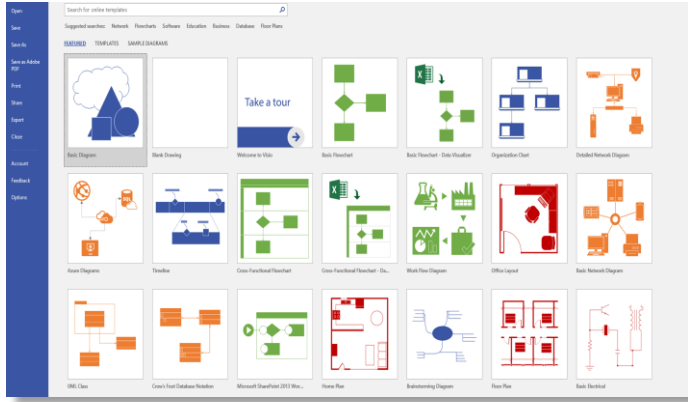


Additional tabs and commands can be added to the ribbon by right clicking any visible ribbon tabs and selecting “customize the ribbon”

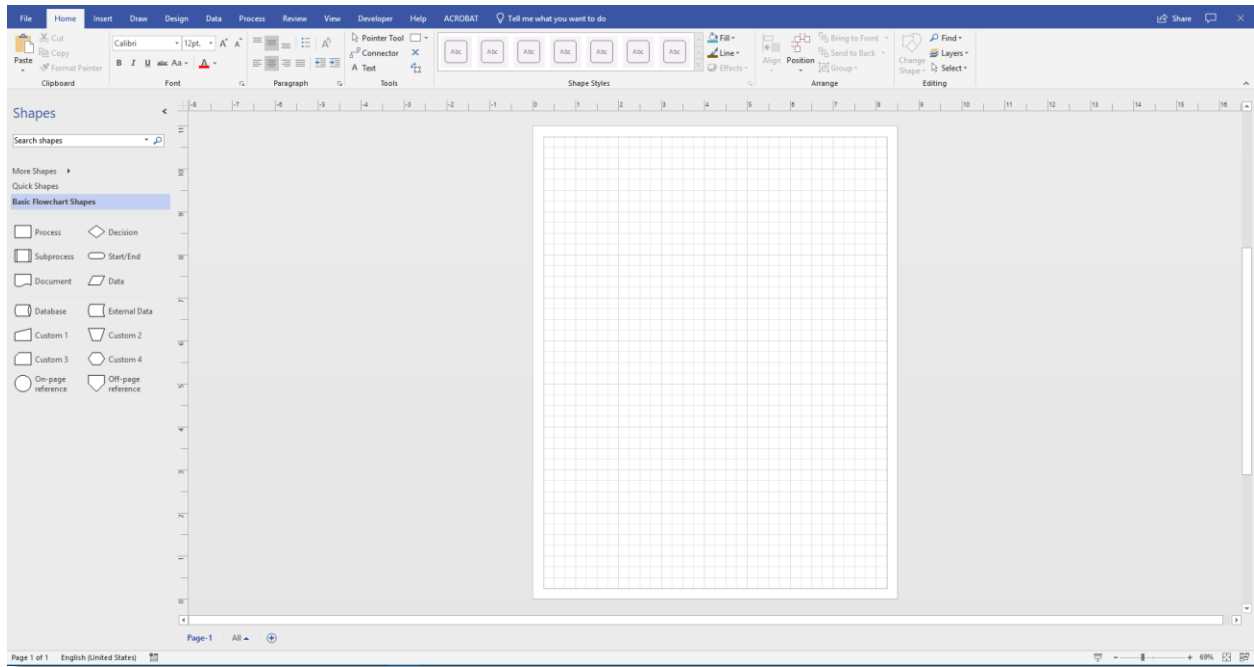


THE BACKSTAGE VIEW

The backstage view in Visio provides access to recent files this view also allows the user to create new drawings, print, share and export existing drawings and explore the many drawing templates included in the program the backstage is a default view when opening the program directly it can also be accessed by clicking the file tab when a drawing page is active



LESSON 2 THE VISIO DRAWING SURFACE

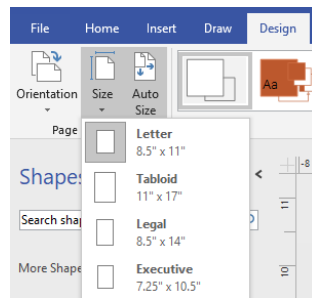


The default Visio drawing surface is 8" x 11"

Portrait orientation, paper size, orientation, and other page settings are available from the design tab

CHANGING THE ORIENTATION OF DRAWING SURFACE

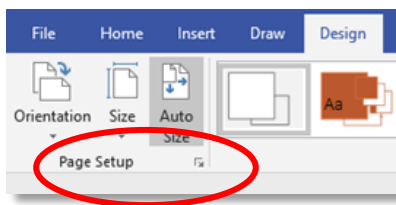
- Navigate to the design ribbon tab
- Select orientation from the top left of the design ribbon
- Select the appropriate orientation for your drawing (portrait or landscape)



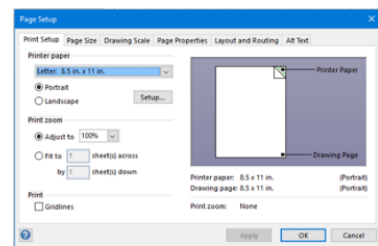
CHANGING THE SIZE OF THE DRAWING SURFACE

- Navigate to the design ribbon
- Select size from the top left of the design ribbon
- Select the appropriate size for your drawing

To allow the drawing surface to automatically grow to fit larger drawings, click the auto size button to the right of the size command



Select the small arrow in the bottom right corner of the page setup group to access all page setup options

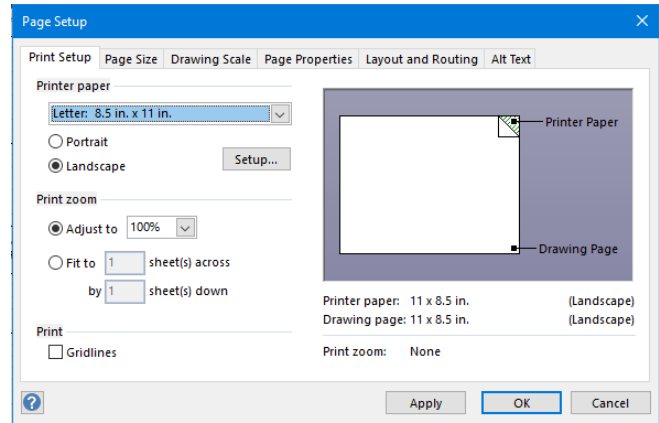


PAGE SETUP OPTIONS

PRINT SETUP

Controls printing behavior of the drawing independent of the actual size of the drawing:

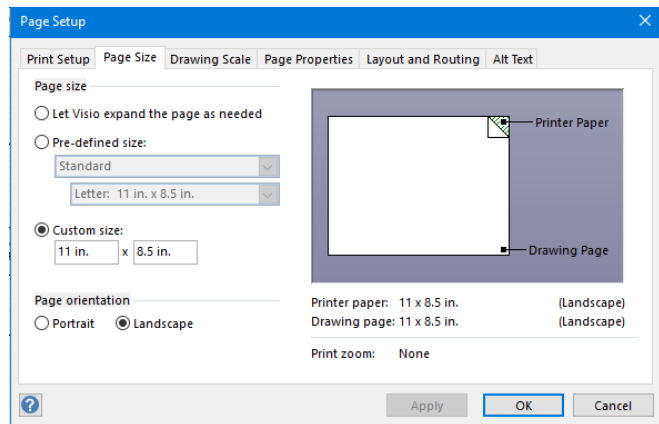
- Select the paper size for your printed drawing from the printer paper combo box
- Select portrait or landscape for your print
- Regardless of actual drawing size, select the print zoom percentage to force your drawing to fit on the selected printer paper or select fit to remove the guess work



PAGE SIZE

Controls the page size of the drawing surface

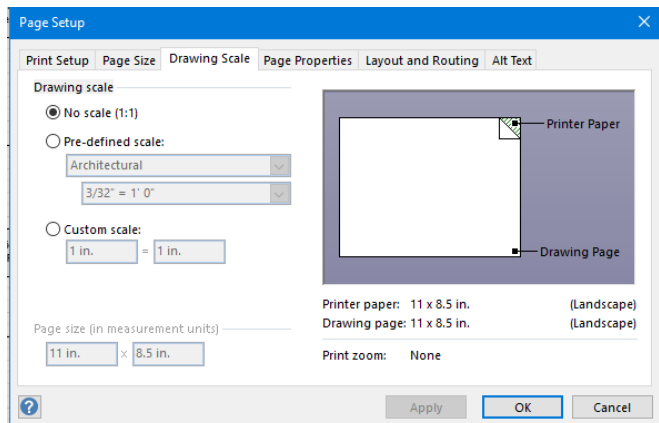
- This feature can also be controlled from the design tab
- Let Visio expand the drawing page as needed allows Visio to expand the drawing surface to fit the drawing
- Select the predefined size that fits your type of drawing
 - Standard
 - Metric
 - Engineering
 - Architectural
- Select a custom size to accommodate nonstandard drawing sizes



DRAWING SCALE

Important when working outside of an 8.5"x11" format the default scale is 1" = 1"

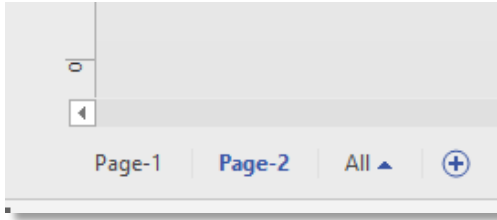
- Select from a wide variety of predefined drawing scales including:
 - Architectural
 - Civil engineering
 - Mechanical engineering
 - Metric
- You can even create a custom scale for your project



VISIO PAGES

A Visio drawing can contain several pages.

Pages are accessed from the bottom of the drawing window.



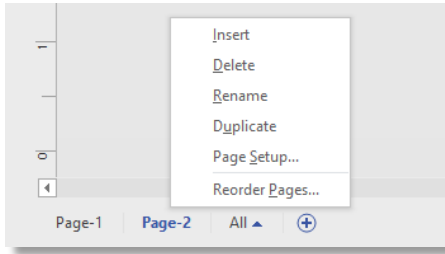
To add a second page to a drawing:

- Navigate to the bottom left corner of the drawing window
- Click the small plus sign to add the page

Navigate to a page by clicking the page name or selecting all to view all pages of the drawing.

Right clicking a page allows you to:

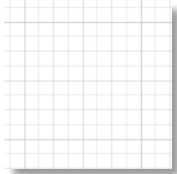
- Add new pages
- Delete existing pages
- Duplicate a page
- Reorder or rename a page



You can also click and drag a page to reorder it.

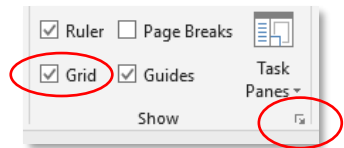
Grids

The grid is a visual tool that facilitates exact placement. Visio shapes are designed to snap to the grid which also aids in exact placement of shapes in a drawing.



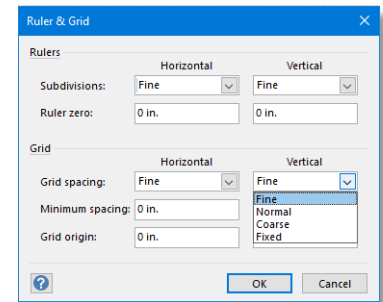
To activate / deactivate the grid:

- Select the view tab
- Navigate to the show group
- Select or deselect the grid check box



To change grid spacing:

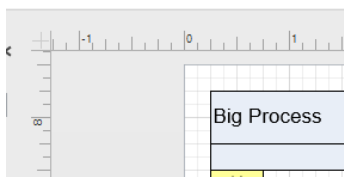
- Select the view tab
- Navigate to the show group
- Select the small arrow in the bottom right corner of the group
- Change the horizontal or vertical grid to normal, course, fine or fixed



Rulers

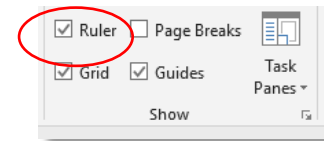
Horizontal and vertical rulers indicate the end and start of the drawing page.

The ruler can be repositioned or deactivated.



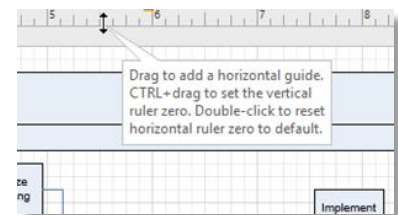
To activate / deactivate the ruler:

- Select the view tab
- Navigate to the show group
- Select or deselect the ruler check box



To change zero point on the ruler:

- Hold your cursor over the edge of the ruler
- Hold the control key and drag until the ruler's 0 is in the desired location then release



LESSON 3 VISIO SHAPES

Shapes are one of the main components of a Visio drawing.

Understanding the characteristics and properties of shapes are key to creating quality Visio drawings.

DRAWING TOOLS

The Visio program drawing tools allow the user to create a variety of shapes

- Drawing tools are located on the home tab.
- Once selected, the drawing tool remains active until the pointer tool (or other drawing tool) is selected.

Once a drawing tool is activated, you can also disengage the tool by pressing the escape key twice.

The drawing tool can be used to create several different shapes from simple rectangles lines and ellipses to Arcs and even freeform shapes.

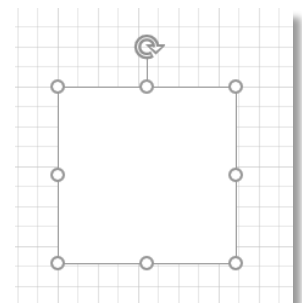
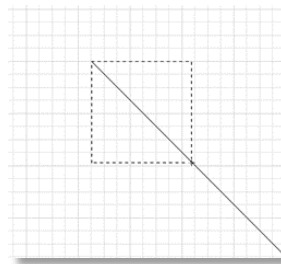
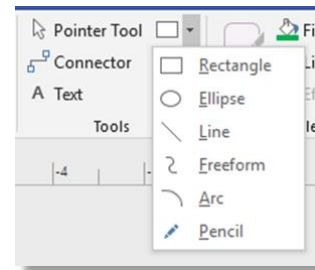
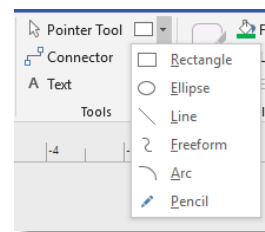
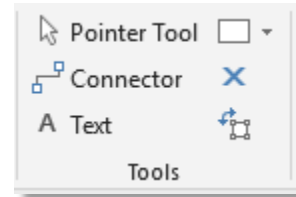
CREATE A SHAPE USING DRAWING TOOLS

Starting with a blank drawing, navigate to the home tab and from the tools group, select the small down arrow next to the rectangle.

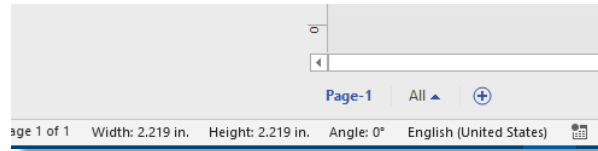
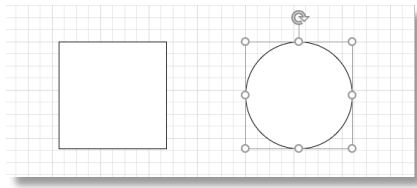
- Select the rectangle tool
- Move to the blank page and click and drag a rectangle shape
- Once you have created the shape to your liking release the mouse
- The shape is now created

If you are using the rectangle or ellipse tool, a diagonal line is displayed when the perfect square or circle is created.

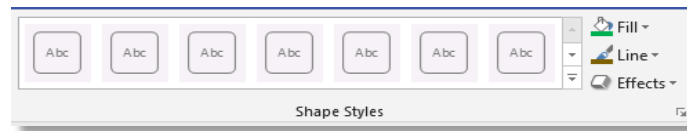
- Two main elements of the drawn shape are
- Sizing handles – manually adjust the shapes size
 - Rotation handle – Rotate the shape



FORMATTING SHAPES

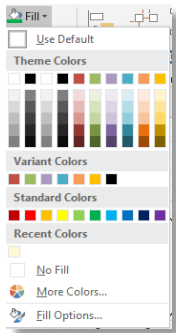


When selected, the dimensions of the drawn shape are displayed at the bottom left of the program.



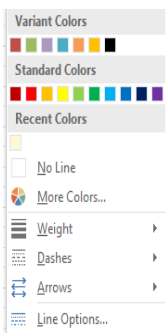
To format a shape, select the shape and from the Home tab, navigate to the shape styles group.

FILL FORMATTING



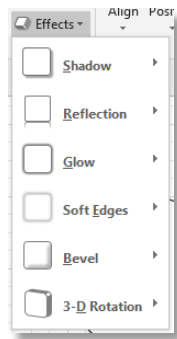
- Full color pallet of theme colors
- Choose no fill to remove the fill color
- Select more colors to create custom colors or match RGB colors
- Select fill options to create gradient colors and control transparency

LINE FORMATTING



- Same color options as fill
- Select weight to determine line thickness
- Add arrows to lines or make the line dashed
- Select line options to create rounded corners (on rectangles)

SHAPE EFFECTS

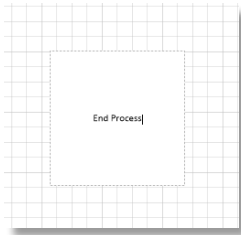


A variety of effects are available including shadows, bevels, and 3-D rotation.

TEXT SHAPES

Text can be added to existing shapes on a drawing and as a shape/ text box.

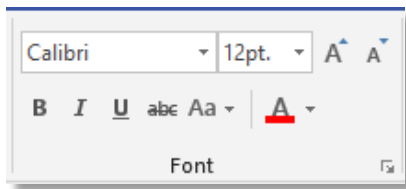
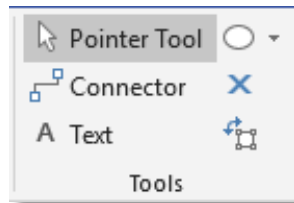
ADD TEXT TO AN EXISTING SHAPE



- Select the shape
- Start typing your text (no need to double click)
- When you have finished, click away from the shape
- Pressing the enter key adds another line to the shape

ADD TEXT DIRECTLY TO THE DRAWING SURFACE

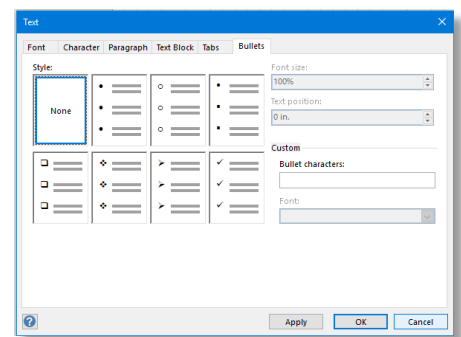
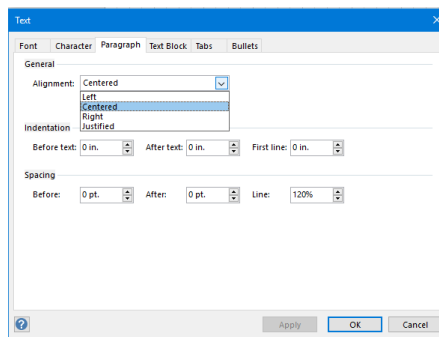
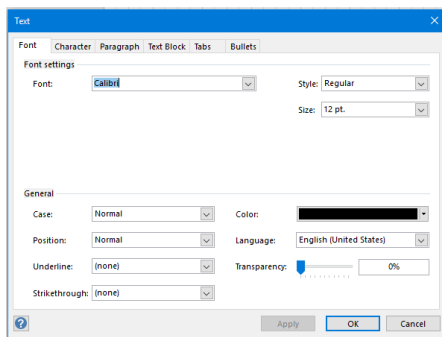
- From the tools group on the Home tab select Text (A)
- Click your desired location on the drawing surface (not a shape)
- When the text box appears on your shape, type your text
- When you have finished, click away from the drawing



Basic text formatting in Visio can be accomplished by selecting the text and applying formatting from the Font group on the Home tab. Bold, Italicize, and Strikethrough your text.

- **Aa** Change case (Normal, All Caps, Each word, Small Caps)
- **A A** Increase / decrease font size (2 font sizes at a time)
- Select the small arrow in the bottom right corner for advanced options

ADVANCED FONT OPTIONS



FONT

Select your text and from the font section you can change case, create subscript and even control transparency of text.

PARAGRAPH

Select your text and from the paragraph section you can control alignment, indentation and line spacing.

BULLETS

Select your text and from the bullets section choose your bullet style and even create a custom bullet character.

ALIGNING AND POSITIONING SHAPES

When working with more than one shape in a Visio drawing, positioning (alignment, spacing, etc.) can be accomplished using one of several tools.

One easy way to position shapes is to use the arrow keys on your keyboard.

To move a shape using the keyboard:

- Select the shape on the drawing surface
- Tap the right or left arrow on your keyboard
- The selected shape will move a quarter inch

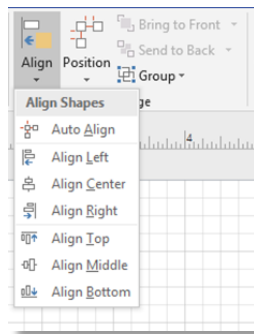
To move in smaller increments:

- Select the shape on the drawing surface
- Hold the shift key
- Tap the right or left arrow on your keyboard
- The selected shape will move slightly (also referred to as nudging a shape)

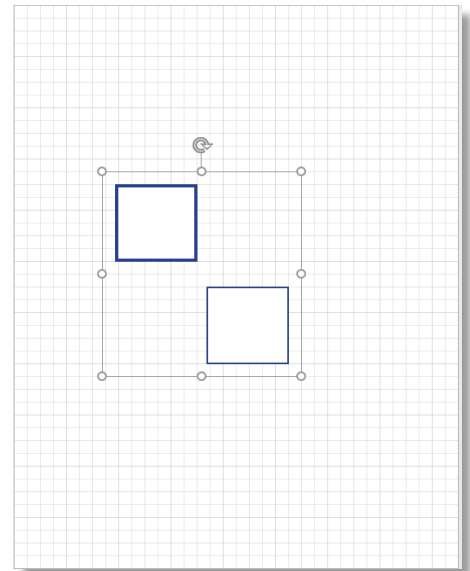
ALIGNING SHAPES

- Select two or more shapes
- Select Align from the Arrange group on the home tab select
- The non-bold shape will move and align itself to the controlling shape

The first shape selected is **bold** and acts as a controlling shape when aligning.



You can hover over any of the alignment option to see a live preview of the result.



CONNECTORS

Visio connectors are used to create relationships between shapes in a drawing. They can be used to link, show flow direction, and can be displayed three different ways.

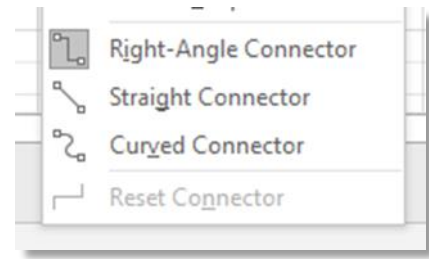
CREATE A CONNECTOR

- Navigate to the tools group on the Home tab
- Click the connector tool command
- Click the first shape to be connected and drag to the second shape
- The two shapes are now connected

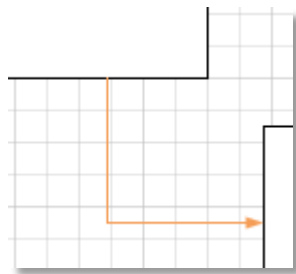
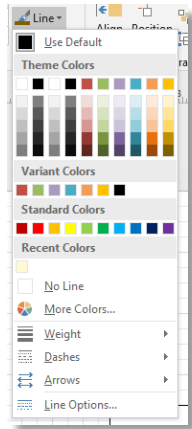
Moving one shape will extend the connector and shapes remain connected

After drawing the default (right angle) connector, right click the connector to change the connector type

- Right angle connector
- Straight connector
- Curved connector



FORMATTING CONNECTORS

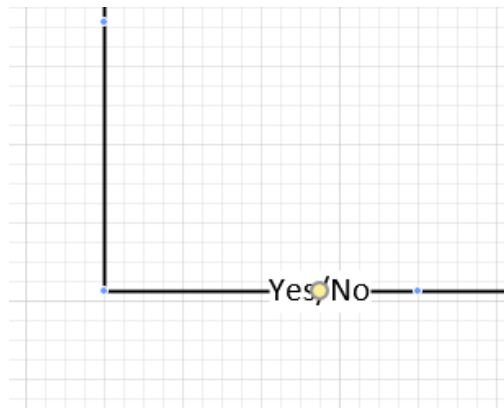


Connectors are lines, so dotted or dashed, colors, thickness and even arrows can easily be added by selecting the connector and navigating to the line formatting options on the home tab.

CONNECTOR TEXT

Connectors are also shapes and text can be added by clicking (selecting) the connector and typing your text.

- The connector text can be formatted like any other text in the program
- After typing your text, you can reposition the text by clicking and dragging the small yellow dot that appears on the line when selected.



LESSON 4 VISIO SENCILS

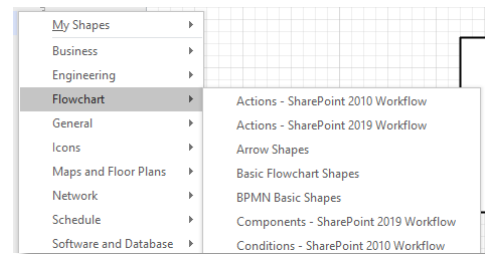
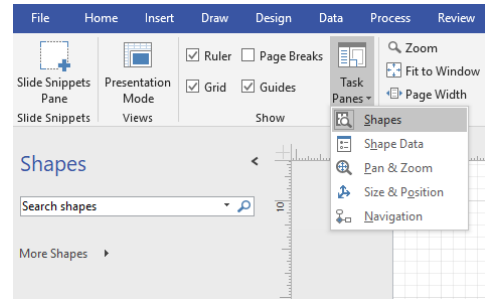
The Visio program contains hundreds of shapes for use in many types of drawings. These shapes range from simple circles and squares to furniture and even space itself. These built-in shapes can be found on drawing stencils. Shape stencils are located on the left side of the program.

THE SHAPES WINDOW

- Navigate to the view tab
- Select task panes
- Select shapes
(a blank panel will appear if not open already)

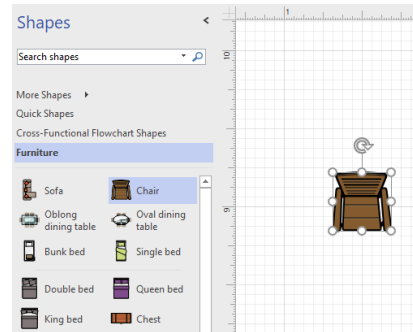
**many templates have their own stencils that contain shapes specifically designed to work with that template

- Click more shapes
- Several categories of shapes will appear
hold your cursor over any category / subcategory
- Click the desired stencil from that category
- The shapes will appear on the left side of the program



USING SHAPES FROM A SENCIL

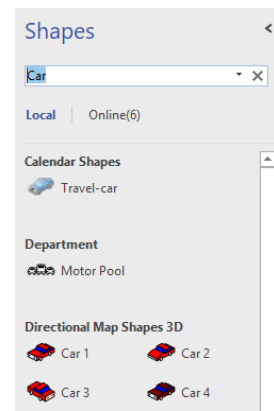
- First, find a shape that you would like to use
- Click the shape, hold and drag the shape into your drawing
- The shape will appear on the drawing page and can be resized, rotated or formatted.



SEARCHING FOR SHAPES

To search for a shape, click into the search Shapes window and type the name of the shape you are searching for (car for example)

The program will return all shapes that fit your search criteria

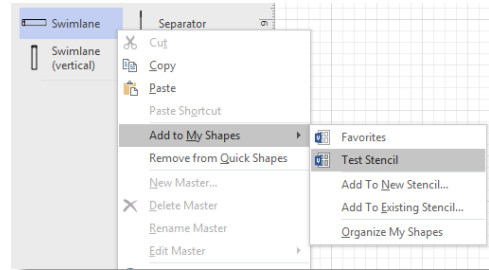
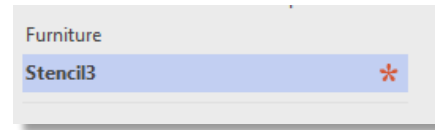


CREATING A CUSTOM SHAPE STENCIL

If you work with certain shapes regularly you may find it helpful to add your favorite shapes to your own custom shape stencil.

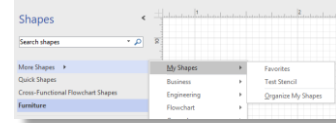
From the Shapes window choose more shapes

- Select new stencil U.S. units
- When the blank stencil is created, right click the asterisk and choose Save
- Give the stencil a name and click ok
- You can now add shapes to your custom stencil by:
 - Right clicking a shape from any other stencil and choosing “add to my shapes”
 - Dragging shapes from the drawing surface to your new stencil



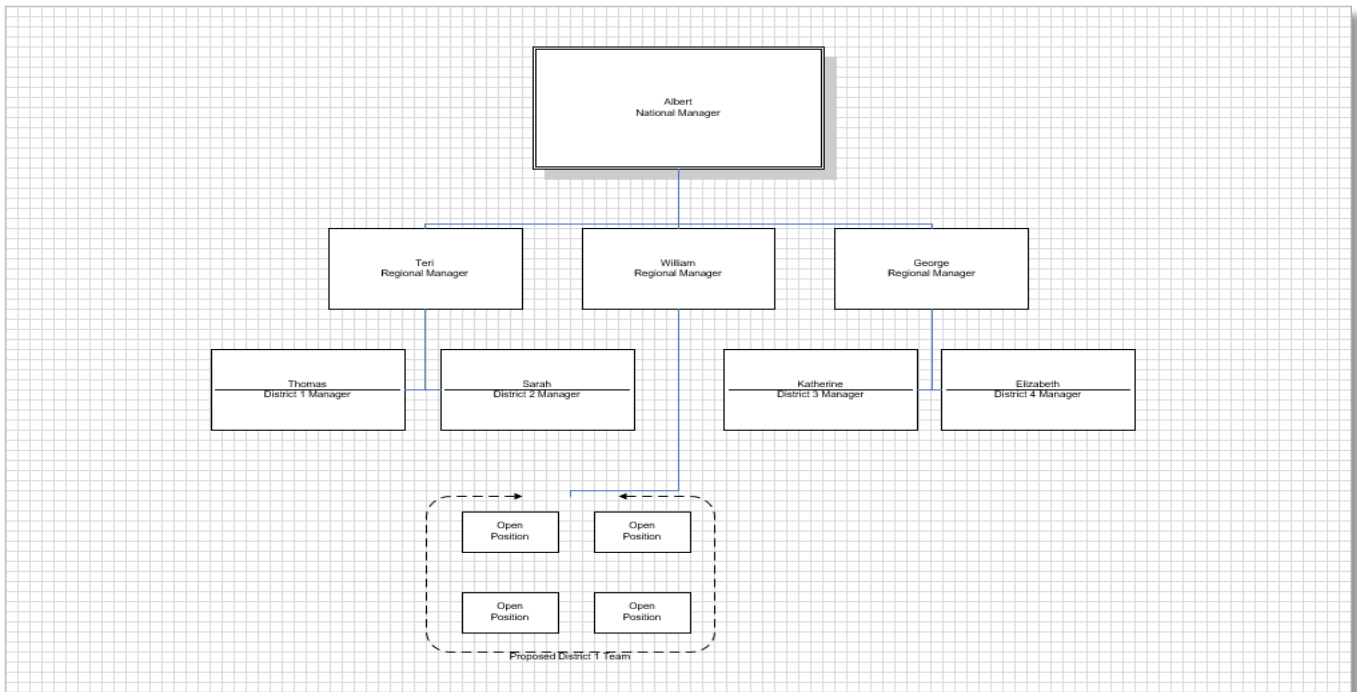
USING YOUR CUSTOM STENCIL

- Select My Shapes from the shapes window
- Select your stencil from the expanded menu



LESSON 5 ORGANIZATION CHART TEMPLATES

By using an Organization Chart template, you can significantly reduce the amount of time required to map and display your organization.

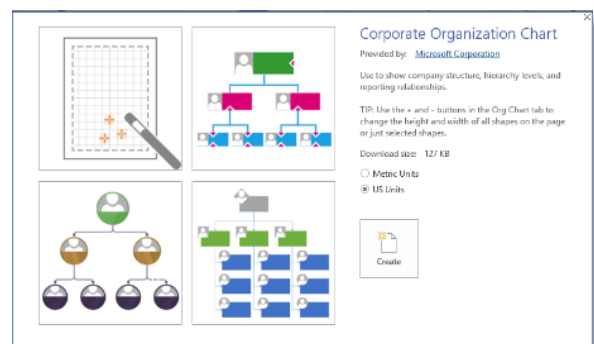


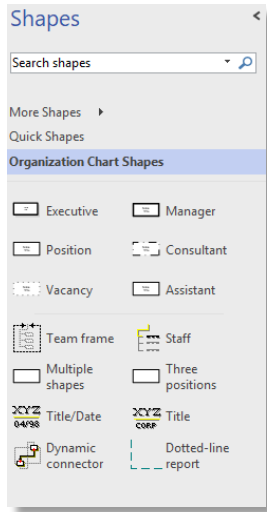
Organization Charts can be constructed two ways.
Options include the Organization Chart templates and the Organization Chart wizard.

USING ORGANIZATION CHARTS TEMPLATES

There are three Organization Chart templates to choose from:

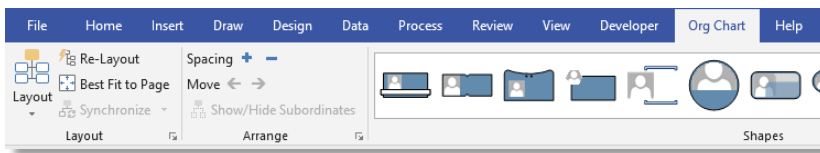
- Department Organization Chart
- Hierarchical Organization Chart
- Corporate Organization Chart





To create a chart using the templates:

- Select the organization chart that best fits your needs (U.S units for this exercise) and click create
- The drawing surface will be configured to work with an organization chart
- The org. Chart stencil will appear on the left side and an org Chart tab will be added to the ribbons at the top of the screen



ADD SHAPES TO THE ORGANIZATION DRAWING

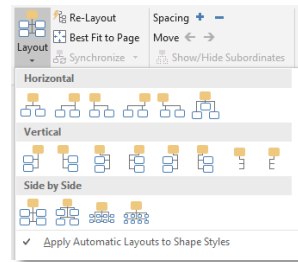
- Select the executive shape from the shapes on the left and drag it onto your drawing page
- Add a second shape (a manager for example) to your drawing by repeating the click and drag method but this time drop the manager shape on top of the executive that is already on the page

** organization shapes arrange themselves and link when dropped on top of another org Chart shape.

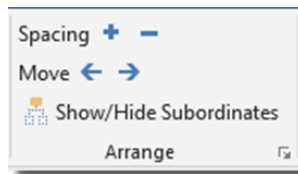
WORKING WITH ORGANIZATION CHARTS

The layout of the organization Chart can be easily changed by using the layout command on the org Chart ribbon:

- Select the top shape
- Choose your desired layout
- All shapes below your selection should adopt the selected layout

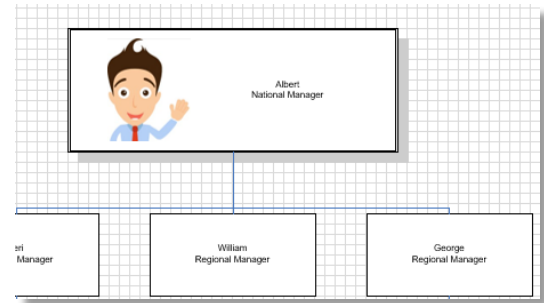
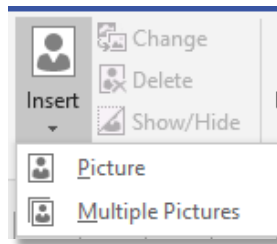


To move (right or left). Select the position and select the move command from the arrange group.



Adjust the spacing between Org Chart shapes by select spacing (+ or -) from the arrange group of the Org Chart ribbon.

Add a picture to your organization shape by selecting the shape and then choosing insert picture from the org Chart ribbon.



ORGANIZATION CHART WIZARD

In addition to creating the organization Chart from scratch, the Chart can also be created from data stored in a text or Excel file. This method is often preferable to manually adding shapes and can help to ensure that the organization stays up to date.

CREATE AN ORGANIZATION CHART USING THE ORGANIZATION CHART WIZARD (EXCEL EXAMPLE)

The most important step in using the wizard is the layout of your organization in the Excel file.

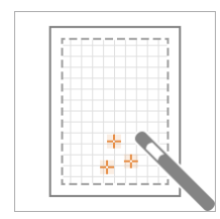
Your Excel file layout should resemble the sample on the right.

The hierarchy of the Chart is determined by the Reports To column.

****The person at the top of the organization reports to no one.**

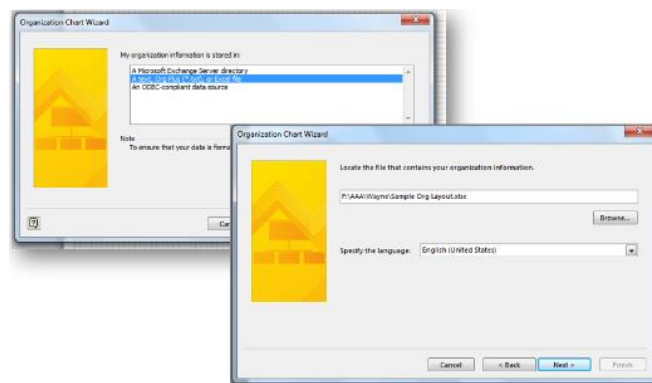
	A	B	C	D	E
	Name	Assoc ID	Title	Band	Reports To
2	Person 1	113388	Chief Exec		5
3	Person 2	113389	Manager		4 Person 1
4	Person 3	113390	Manager		4 Person 1
5	Person 4	113391	Analyst		2 Person 5
6	Person 5	201544	Senior Analyst		3 Person 2
7	Person 6	201545	Analyst		2 Person 5
8	Person 7	201546	Senior Analyst		3 Person 3
9	Person 8	201547	Manager		4 Person 1
10	Person 9	201548	Senior Analyst		3 Person 3
11	Person 10	113397	Analyst		2 Person 7
12	Person 11	113398	Manager		4 Person 1
13	Person 12	113399	Senior Analyst		3 Person 2
14	Person 13	113400	Supervisor		3 Person 11
15	Person 14	113401	Supervisor		3 Person 3
16	Person 15	113402	Analyst		2 Person 14

Open Visio and from the template gallery select organization Chart and then organization Chart wizard.

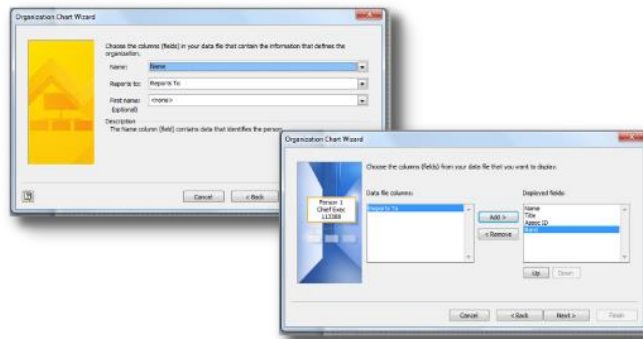


Select the Excel file containing your organization. If

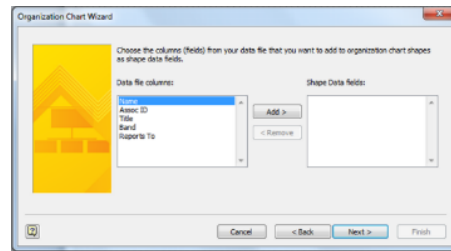
****Be sure the Excel file is closed.**



“Name” and “Reports to” are two fields that define the organization.

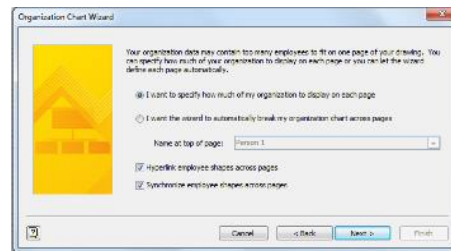


Unless you are working with shape data, leave this section blank.

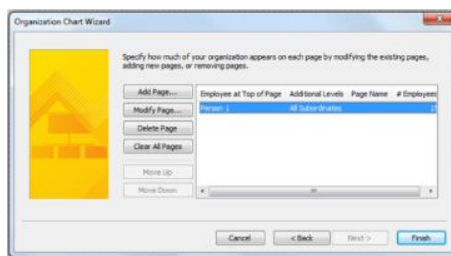


You can specify how much of your organization will display on a page or allow Visio to spread the organization to additional pages as needed.

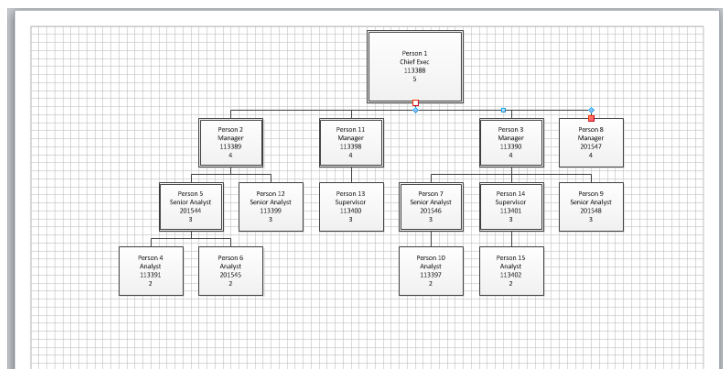
(Select “I want to specify . . .” for this exercise)



To show the entire organization on one page, select the person at the top of the organization and click finish.

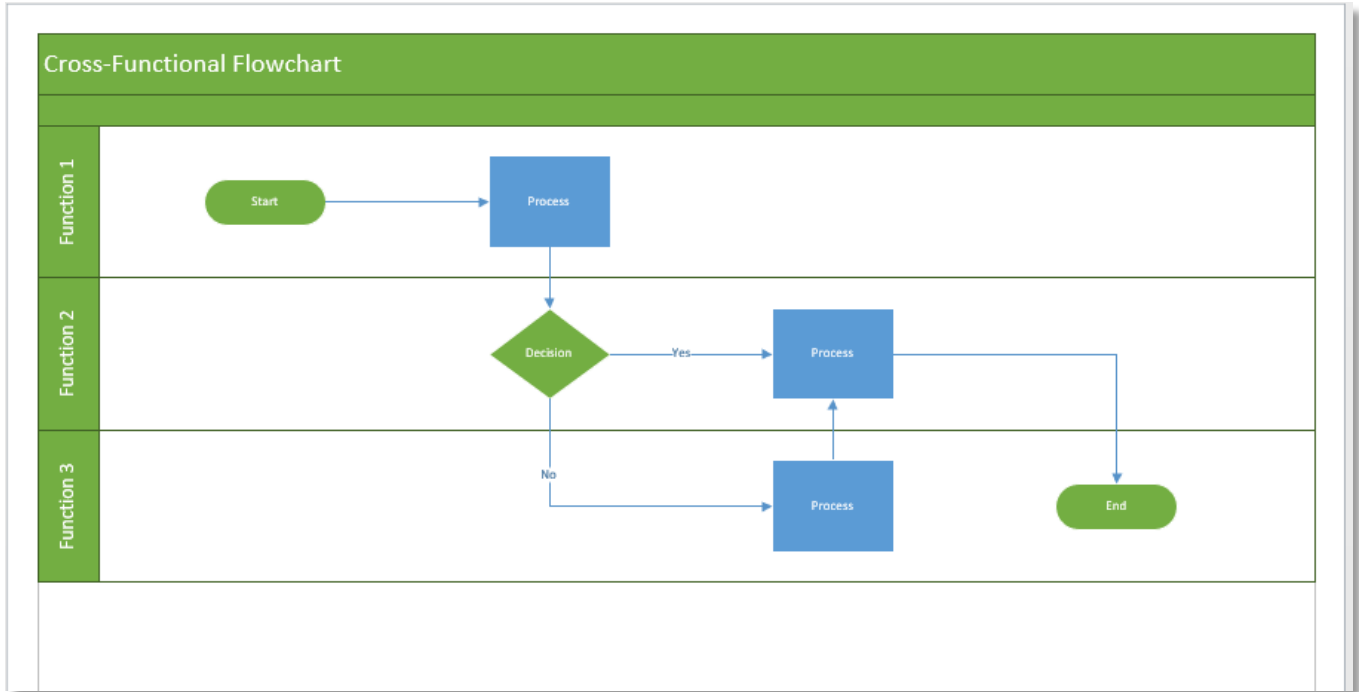


The wizard will create an Organization Chart from the data stored in the Excel file.



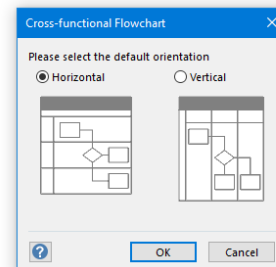
LESSON 6 CROSS FUNCTIONAL FLOWCHART TEMPLATE

The cross functional flowchart templates provide the user with a customized ribbon and all the shapes needed to create a flowchart that shows the relationship between processes and functions.

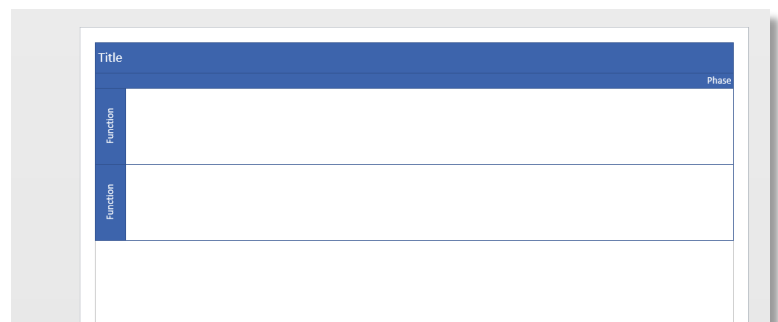


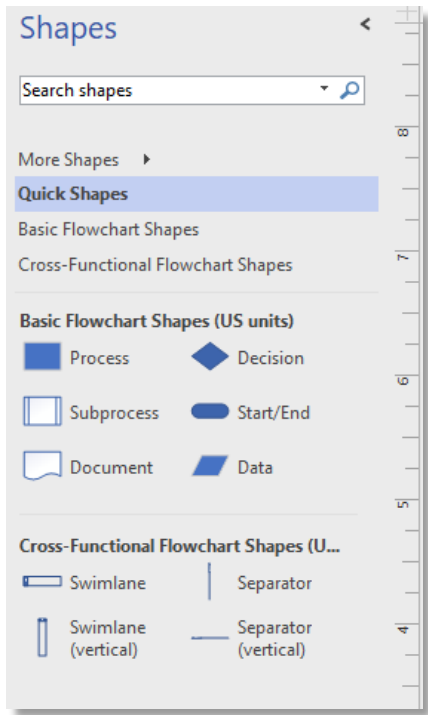
WORKING WITH THE FLOWCHART TEMPLATE.

After selecting the template, you are first asked if the flowchart will be horizontal or vertical.



After making your orientation selection, the drawing surface is configured and a basic cross functional Chart frame is added to the drawing with two "Swim lanes".





The template also provides two shape stencils containing the shapes necessary to build a cross functional flowChart.

- Basic FlowChart Shapes- contain process, decision and other basic shapes
- Cross Functional FlowChart Shapes- Provide horizontal and vertical swimlanes and horizontal and vertical Separators
- A smaller number of shapes from both stencils can also be found on the Quick Shapes stencil