

Visio Premier

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Interface

From the Quick Start Guide by Microsoft:

Updated templates
Templates help you start the drawing type that you want. Find them on the **File** tab. The most popular templates are color-coded by category, and you can search if you don't see the one you want.

Customize the look and design
Give your drawing a coordinated look with themes and matched colors. Find them on the **Design** tab.

Add comments
Add comments to a shape, or reply to others' comments. Click a comment indicator on the drawing, or use the **Review** tab.

Quick Access Toolbar
Commands here are always visible. Right-click a ribbon command to add it here.

Shapes search
Can't find a shape? Click **Search** in the **Shapes** window.

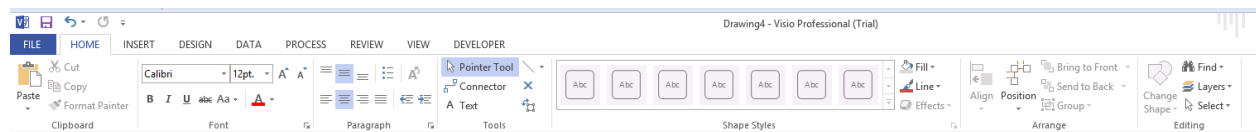
Specialized shapes
Templates come with stencils, which are collections of specialized shapes. You can add more stencils for more shape options.

Show or hide the ribbon
Click a tab to open the ribbon, or pin it so it's always visible.

Shape effects
Give shapes effects like shadows, gradients, or 3-D rotations.

Use touch controls
If you have a touch device like a tablet, you can review and edit your drawing with touch gestures. Add and move shapes, use pinch and zoom, add comments and text.

The Ribbon:



Things you might be looking for:

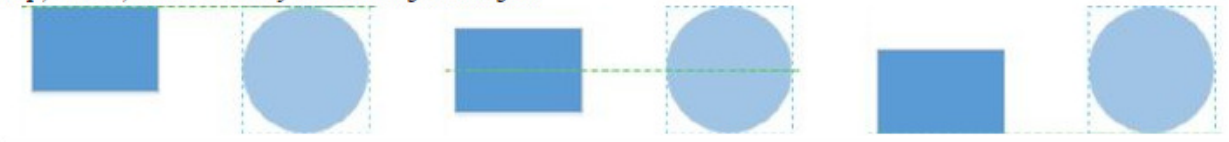
To...	Click...	And then look in the...
Create or open a drawing, save, print or share, refine how Visio works	File	New, Open, Save, Save As, Print, Share, Export, and Options groups.
Add or edit text, give a style to a shape, align and arrange shapes	Home	Font, Paragraph, Shape Styles, and Arrange groups.
Add a picture, CAD drawing, text box, container or connector	Insert	Illustrations, Diagram Parts, and Text groups.
Apply a professional color scheme to a drawing, add a background	Design	Themes, Variants, and Backgrounds groups.
Check spelling, add or reply to comments	Review	Proofing and Comments groups.
Turn on gridlines and guides, turn on the Shape Data window	View	Show and Visual Aids groups.

Creating a New Diagram

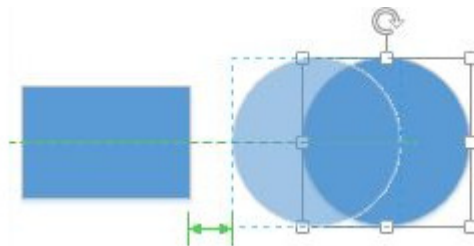
If Visio is not running, start it. On either the New or startup page, double-click the Basic Diagram thumbnail. Save the drawing as **Basic Shapes**.

1. Drag a **Rectangle** shape onto the drawing page and position it toward the upper-left corner of the page.
2. Drag a **Circle** shape onto the drawing page and position it to the right of the rectangle. Before you release the mouse button to drop the circle, move it up and down on the page. As you move the circle, a green, horizontal Dynamic Grid line appears when the circle is in certain positions relative to the rectangle.

From left to right in the following graphics, the Dynamic Grid line indicates when the circle is aligned with the top, center, and bottom of the existing rectangle.



3. Use the Dynamic Grid to align the circle with the middle of the rectangle and drop it so the space between the shapes is approximately 1 inch.
4. Click on the circle and drag it closer to the rectangle. The Dynamic Grid centerline appears, and if you've located the circle at a certain distance from the rectangle, a second Dynamic Grid element appears. When the distance between the two shapes matches the default spacing interval for this page, a double-headed arrow appears.
5. Keep dropping items and experiment with the dynamic spacing



Tip: You can change the default inter-shape spacing interval for a page: on the Home tab, in the Arrange group, click Position, and then click Spacing Options. The Spacing Options dialog box that appears enables you to change the horizontal and vertical spacing intervals.

Selecting Shapes

There are two common ways to select shapes

- Ctrl+Click the shape you want to select/deselect

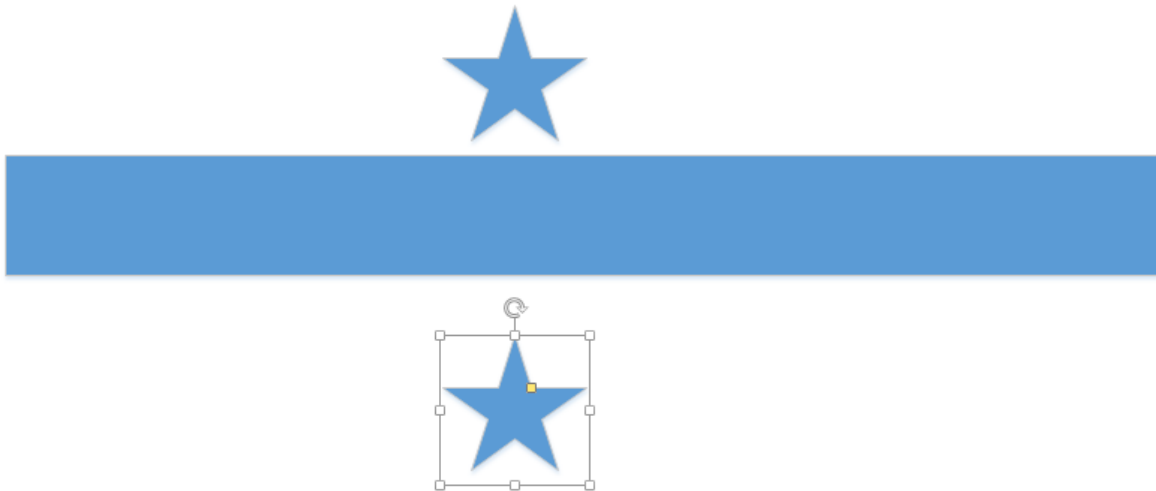
- Create a bounding box around the shapes you want to select.

A third way to select (unique to Visio) is the Lasso select.

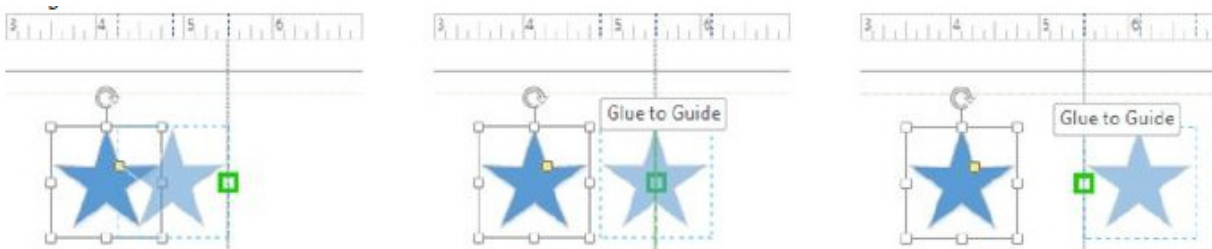
- Lasso Select (Home->Editing->Select)

Positioning shapes with rulers and guides

1. Create a **New** document
2. Drag a **Rectangle** shape onto the page and position it about one fourth of the way down the page. Drop it so the left end is at the left margin of the page
3. Use the resize handle on the right end of the rectangle shape to stretch the right edge to the right margin.
4. From the **Basic Shapes** stencil, drag a **5-Point Star** shape onto the page and drop it above the left half of the rectangle.
5. Drag a **5-Point Star** shape onto the page below the rectangle and observe that the Dynamic Grid does not help.



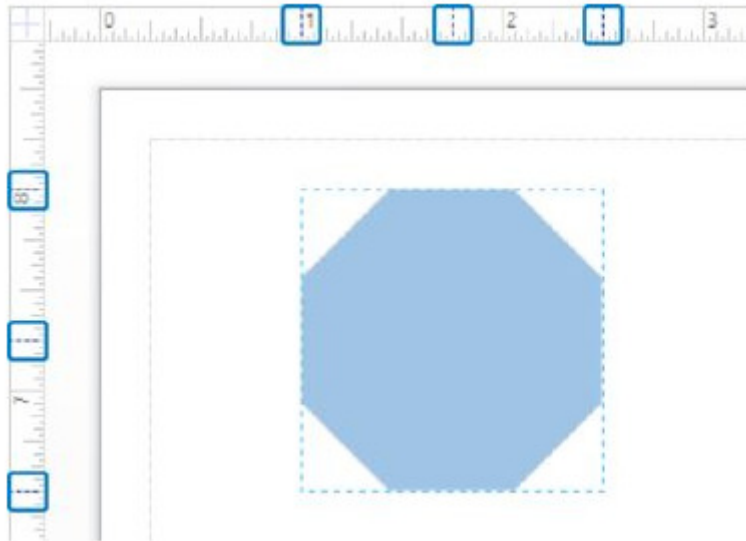
6. Position the cursor over the vertical ruler on the left side of the page and observe that the cursor changes to a double-headed arrow. Click the ruler and drag into the middle of the drawing page.
7. Drag the top star toward and over the guide and observe that you can glue the edges and center of the star shape to the guide.



8. Glue the center of the star to the guide
9. Drag the bottom star and glue its center to the guide.

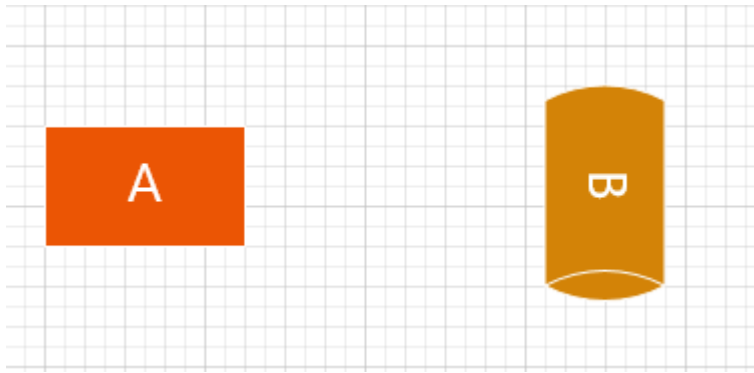
Note: Using a guide bar isn't the only way to precisely locate an object

1. Use the **Zoom** slider at the bottom of the drawing page to set the zoom level to **100%**. Then position the drawing page so the upper-left corner is visible
2. Drag an **Octagon** shape into the upper-left corner of the page; before releasing the mouse button, observe that there are dashed lines in both the horizontal and vertical rulers.

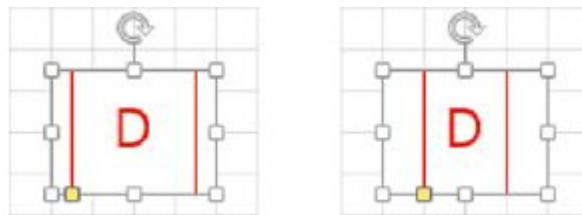


Resizing and repositioning shapes

1. Open the file **Size and Position**
2. Click once (don't double-click) to select a shape **A**.
The white squares that appear on a selected shape are referred to as **selection handles, resize handles, or just handles**
3. Drag the middle handle on the right edge of shape **A to the right to increase the width of shape A**. Notice the green arrow under other shapes when the rectangle becomes a certain size.
4. Continue to drag the right handle of shape **A** further to the right until the Dynamic Grid feedback informs you that shape **A** is now the same width as shape **B**.
5. Click on shape **B** and with the top circle, rotate the shape 90 degrees.



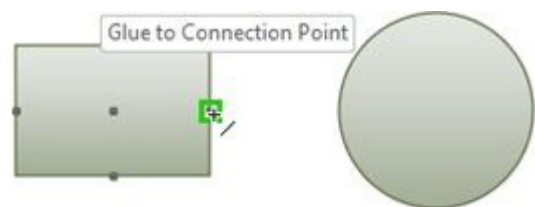
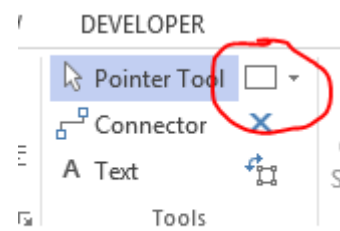
- Click once to select shape **C** and then try to rotate it. You are not able to rotate it because that property has been locked for this shape.
- Click once to select shape **D**, which is a sub-process shape. All of the usual handles are available, but there is a new style of control handle in the lower-left corner of the shape.



- Click once to select Shape **E**. Then on the **View** tab, in the **Show** group, click the **Task Panes** button, and then click **Size & Position** to open the **Size & Position** window. Position the new windows to the left of shape **E**.
- Click in the **Width** cell, type **2**, and then press **Enter**. The width of the cell changes to reflect the new value.

Connecting Shapes with Lines

- Open Basic Shapes B
- On the Home tab, in the Tools group, click the **Line Tool**. Notice that the cursor changes to a plus sign with a diagonal line to the lower right
- Point near any of the five shapes toward the top of the page. Notice that dark squares appear on the edges and in the center of the shapes. These are **connection points**.
- Move the cursor near a connection point and notice that a green square appears. The square indicates that you can click on it to glue on end of the line to the connection point.
- Click the connection point on the right end of the rectangle, drag to the connection point on the left edge of the circle, and then release the mouse button.
- Draw another line above the rectangle but do not glue either end to a shape.

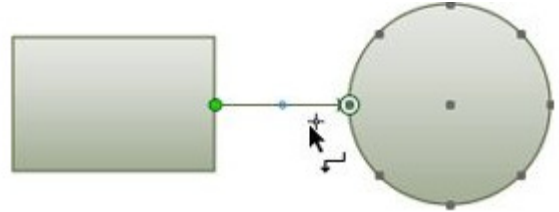


7. In a blank area of the drawing page, draw a freeform line, but sure to end it at exactly the same point you started.

So far these are connectors that do not bend. But, if a dynamic connector is used, Visio automatically adds and removes bends in the line based on the relative positions of the shapes to which it is glued.

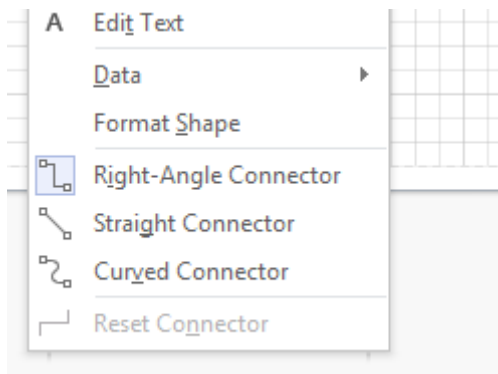
1. Open Basic Shapes 2

2. On the Home tab, in the Tools group, click the Connector button. Notice that the pointer changes to a black arrow and there is an arrow with two right-angle bends below it.
3. Drag from the connection point on the right center of the upper rectangle to the connection point on the left edge of the circle, and the release the mouse button, creating **static glue** between the two connection points.



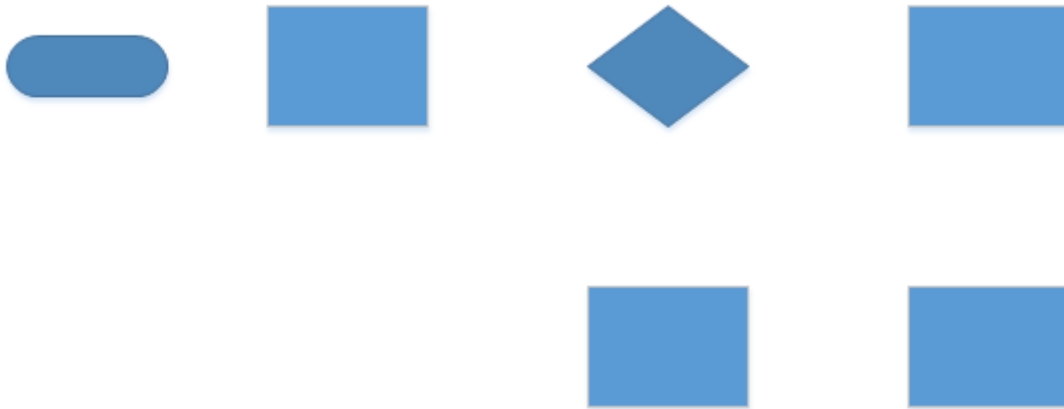
Just as in the preceding exercise, the line you've drawn shows green handles at its endpoints. However, unlike the previous line, a dynamic connector has an arrowhead on its destination end by default.

4. On the **Home** tab, in the **Tools** group, click the **Pointer Tool**. You can also press Ctrl+1 for this.
5. Drag the shape up a small distance and observe what happens.
6. By default, the **Right-Angle** connector is selected. But, it can be changed to any other type of connector.



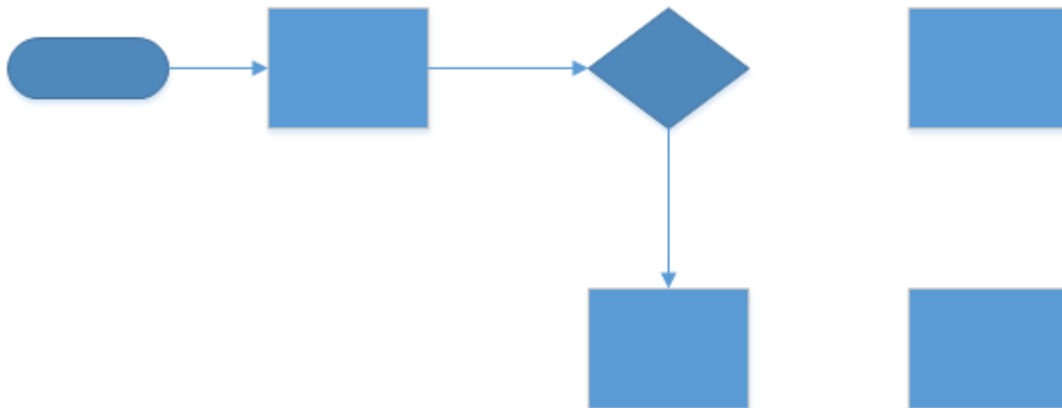
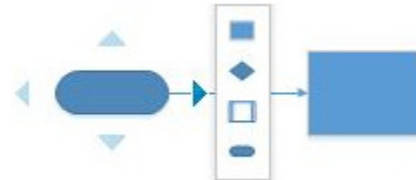
Using AutoConnect and Quick Shapes

1. Click the File tab, then New. Click Categories, click Flowchart, and then double-click the Basic Flowchart thumbnail. Save the new drawing as **Quick Draw**.
2. Drag a **Start/End** shape into the upper-left corner of the drawing page.
3. Drag Process and Decision shapes onto the page to create a drawing like the one shown.



Notice that when you point to any shape on the page, blue AutoConnect arrows appear on the sides that are not yet connected to another shape.

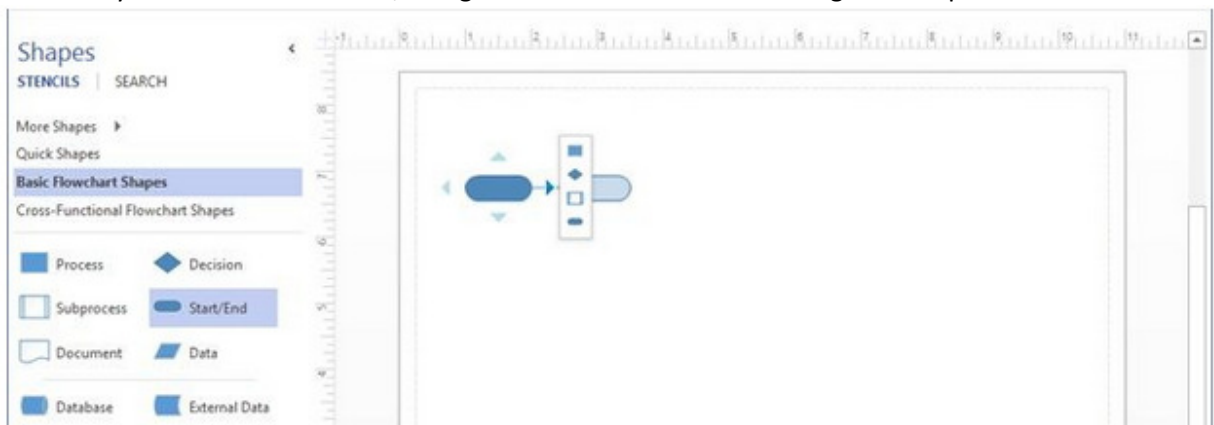
4. Point to the **AutoConnect** arrow on the right side of the **start/end** shape. The Live Preview feature of Visio shows a dynamic connector linking the **start/end** to the process shape. A Mini Toolbar containing four shapes also appears.
5. Click the **AutoConnect** arrow to connect the shapes.
6. Continue clicking the appropriate **AutoConnect** arrows until the diagram looks like the following graphic:



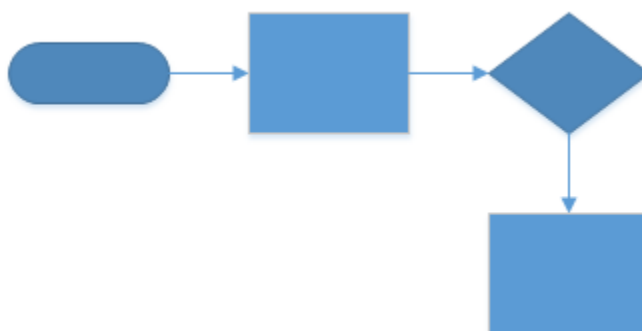
- Point to the Decision shape until the AutoConnect arrows appear, click the AutoConnect arrow on the right of the decision shape, and then drag it to the lower of the two rectangles on the right side of the page. As you drag, the screen will look like the following graphic on the left. When you release the mouse button, the shapes are connected, as shown on the right.



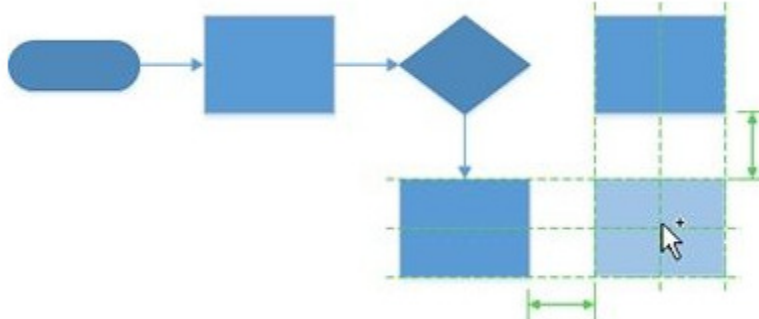
- To the right of the **Page-1** name tab below the drawing page, click the **Insert Page** button. Visio adds a new page called **Page-2**.
- Drag a **Start/End** shape into the upper-left corner of **Page-2**.
- Point to the **AutoConnect** arrow on the right side of the **start/end** shape. Live Preview shows two things in addition to the dynamic connector arrow: it displays a preview of the shape that is currently selected in the stencil, along with a Mini Toolbar containing four shapes.



- Click the **Process** shape in the Mini Toolbar to drop it on the page.
- Point to the process shape and use AutoConnect and the Quick Shapes Mini Toolbar to add a decision shape to its right.
- Point to the decision shape on the page and drop a process shape below it. When you click a Quick Shape in the Mini Toolbar, Visio always adds a dynamic connector. The diagram should look like below.



14. Drag a Process shape from the stencil and drop it to the right of the decision shape already on the page. Then drop another Process shape below it. Be sure to use the Dynamic Grid to ensure that the space of the new shapes is consistent with the existing shapes.



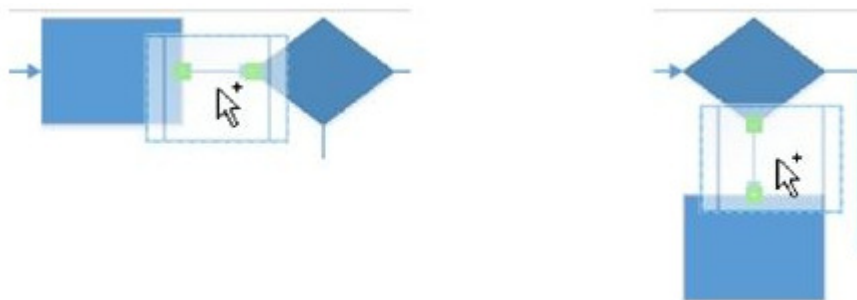
15. Right-click anywhere on the drawing page. On the Mini Toolbar, click the Connector Tool, and then use it to link the right end of the decision shape to the left end of the lower-right process shape.

AutoAdd and AutoDelete

When adding a shape using AutoAdd, Visio rearranges the existing drawing to make the new shape fit. Sometimes the changes it makes are minor; other times they are more significant.

When deleting a shape that is linked to one other shape with a dynamic connector, AutoDelete automatically removes the now superfluous connector.

1. With the drawing completed in the last exercise – drag a **Subprocess** shape from the stencil and position it on top of any existing dynamic connector. Both ends of the connector display large green squares that are visible through the semitransparent **Subprocess** shape. **Don't release the mouse button yet!**
2. Drop the **Subprocess** shape on the connector below the **Decision** shape to make room for the new shape.

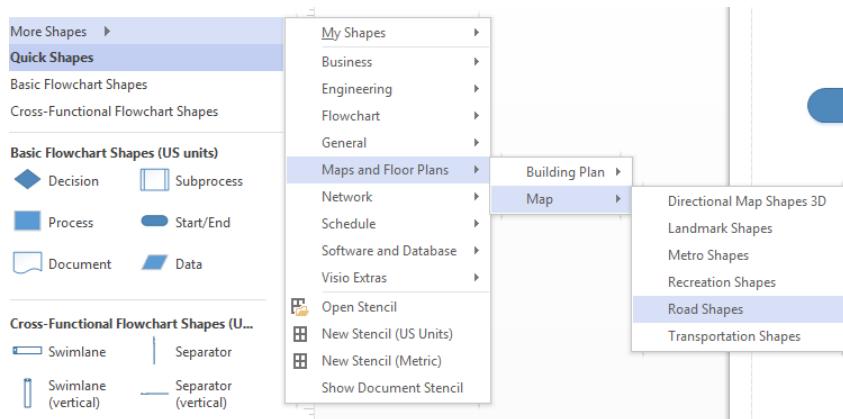
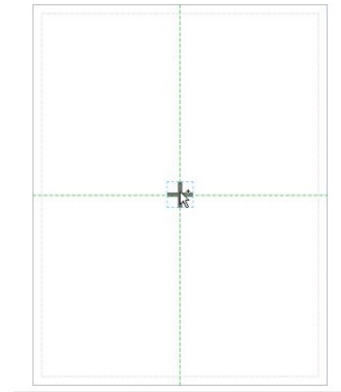


3. Drag a **Subprocess** shape from the stencil and drop it on the connector between the start/end shape and the first process box. Visio makes more significant changes in order to accommodate the new shape and avoid the unconnected **Process** shape in the upper right.
4. Select the **Process** shape at the very bottom of the diagram and then press the **Delete** key to remove the shape. Visio deletes the selected shape and also removes the dynamic connector that was linked to the **Process** shape.

Replacing shapes

The cool thing about Visio is that it holds information about the shapes other than the shapes themselves. This is out of the purview of this class, but switching out shapes can be quite useful!

1. Start a new drawing
2. Open the Road Shapes Stencil by going to:
More Shapes -> Maps and Floor Plans -> Map -> Road Shapes



3. Drag a **4-way** shape and use the Dynamic Grid to drop it in the center of the drawing page. Leave the shape selected.

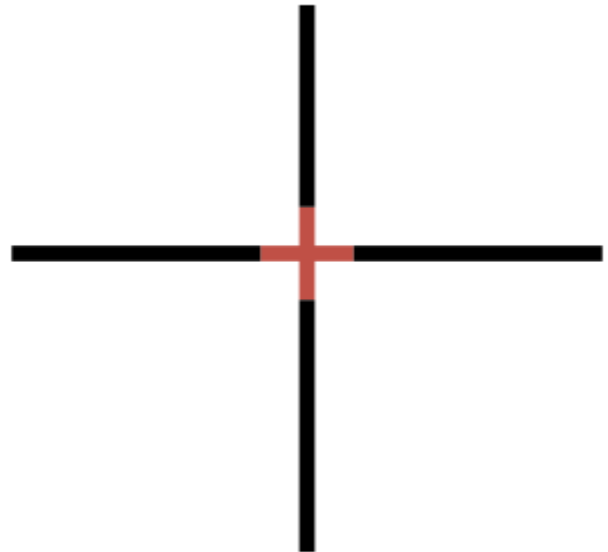
4. With the **4-way** shape still selected, on the **Home** tab, in the **Shape Styles** group, click **Line** and then in the **Standard Colors** section of the color menu, click **Red**.
5. Drag a **Road square** shape onto the page and glue on end to the right end of the **4-way** shape. Then drag and glue a second **Road square** to the left of the **4-way** shape.



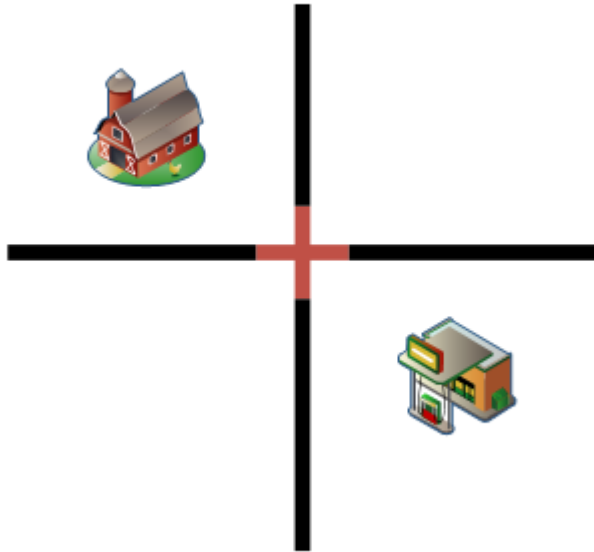
6. Drag two additional **Road square** shapes onto the page and glue them to the top and bottom of the **4-way** shape.



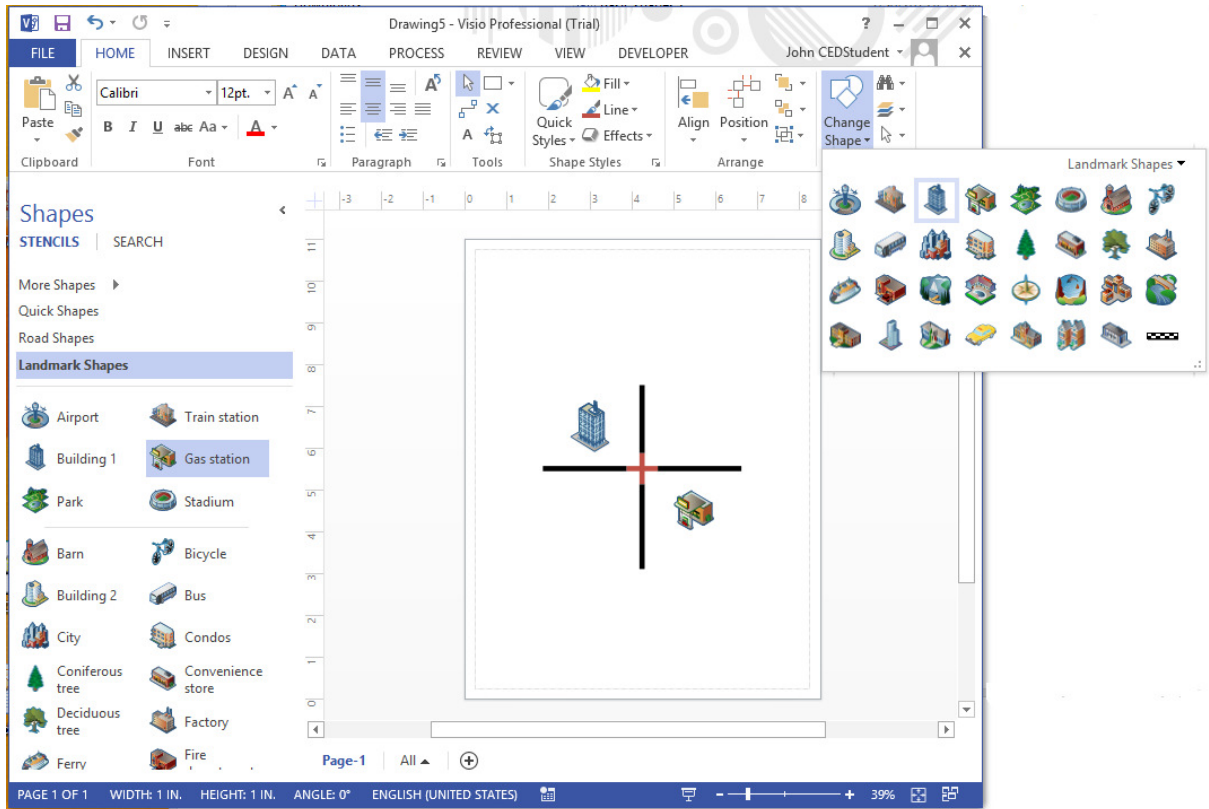
7. Click the unglued end of the **Road square** shape attached to the top of the **4-way** shape and drag it up and to the right until it is aligned vertically. Then, do the same to the bottom.



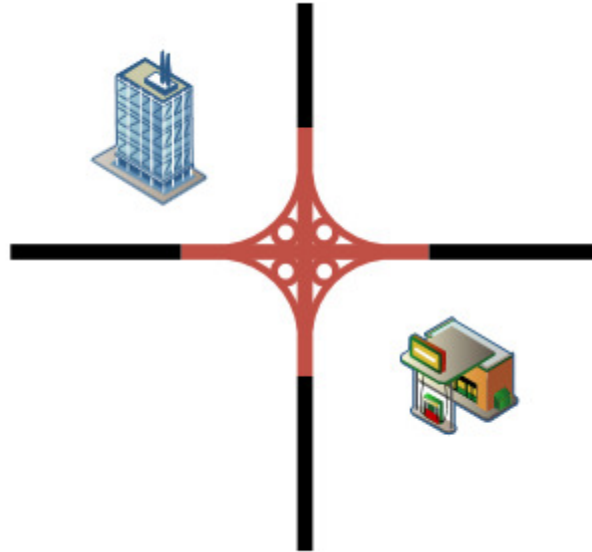
8. In the **Shapes** window, click the **Landmark Shapes** stencil header (**More Shapes -> Maps and Floor Plans -> Map -> Landmark Shapes**) and drag a **Barn** into the upper-left quadrant of the roadmap.
9. Drag a **Gas station** shape into the lower-right quadrant of the map.



10. Click the **Barn** shape on the drawing page once to select it.
11. On the **Home** tab, in the **Editing** group, click **Change Shape**, and then in the **Change Shape** menu, point to the **Building 1** icon.



12. Right-click the 4-way shape on the drawing page to select it and then on the Mini Toolbar, click **Change Shape**
13. Change the **4-way** to a **Cloverleaf interchange**.



Adding text to shapes

Most diagrams are self-explanatory. For those that are not, text can be added.

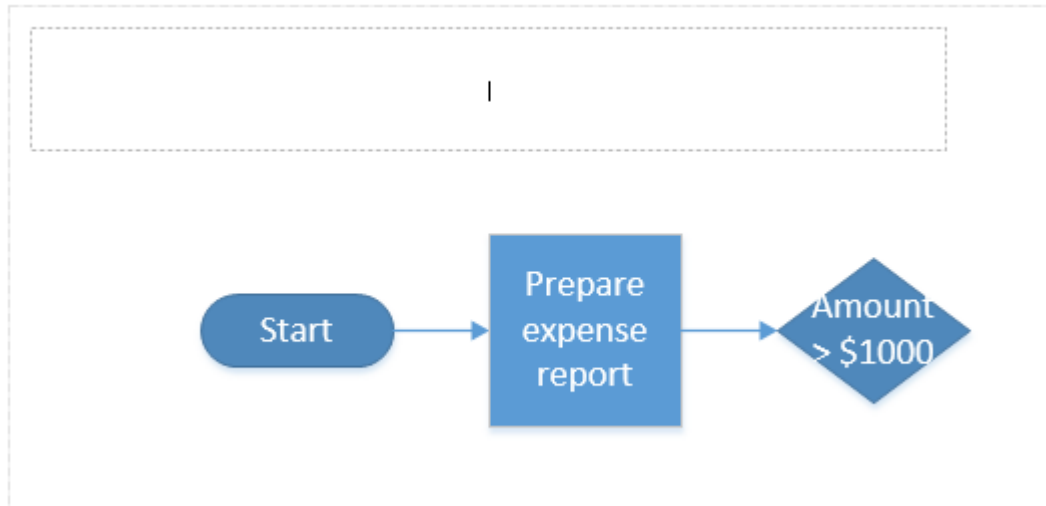
1. Start a blank new document using the **Basic Flowchart Shapes** template.
2. Add **Start**, **Process**, and **Decision** shapes as below:



3. Press **Ctrl+A** to select all shapes. Then on the **Home** tab, in the **Font** group, in the **Font Size** list, click **14 pt**.
4. Double-click the process shape to the right of the start shape, type **Prepare expense report**, and then click anywhere on the background of the page. When you click outside the shape, notice that the the shape becomes taller.
5. Double-click the start shape and type **Start**.
6. Click once (don't double-click) on the decision shape, press **F2**, type **Amount > \$1000**, and then press **F2** again.

Let's create a Title for this!

1. On the **Home** tab, in the **Tools** group, click the **Text** button. The cursor changes to a plus sign with a page icon below it.
2. Click in the upper-left corner of the drawing page and drag to create a text box that is around 6 inches long.



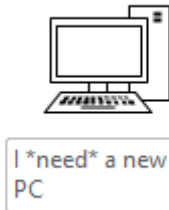
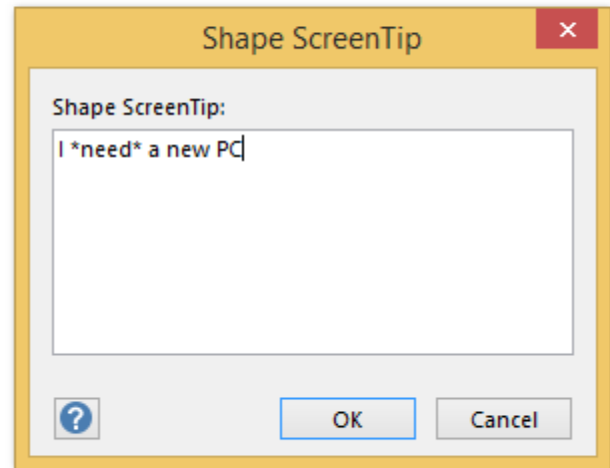
3. Type **Sample Flowchart for Expense Reporting Processing**.
4. On the **Home** tab, in the **Tools** group, click the **Pointer Tool** button. Visio closes the text box and returns to the previous zoom level.
5. On the **Home** tab, in the **Font** group, click the **Font Size** arrow. As you point to various font sizes, notice that Visio provides a live preview of the results.
6. Select **24 pt.** as the new font size
7. If the text wraps in the box, drag and increase the size of the box until the text fits well.

Sample Flowchart for Expense Report Processing

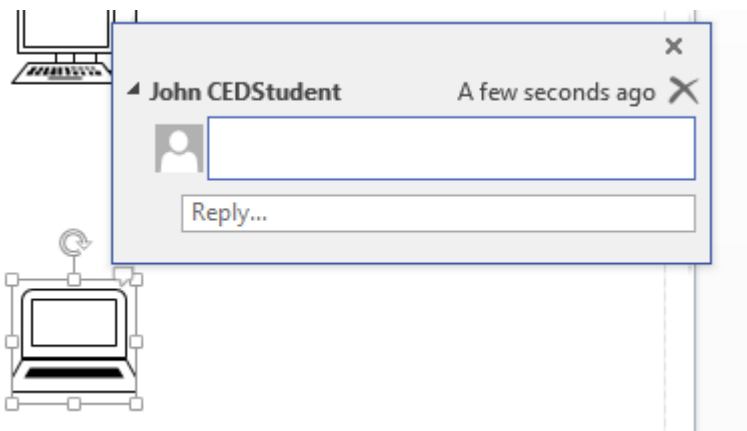


Add Screen Tip

1. Create a New (Blank) document
2. Open the (**More Shapes -> Network -> Computers and Monitors**) stencil.
3. Drag a **PC** shape on to the page
4. On the **Insert** tab, in the **Text** group, click the **ScreenTip** button to open the **Shape ScreenTip** dialog box
5. Type **I *need* a new PC** in the dialog box and then click OK.
6. Point to the PC and observe the pop-up text that you've created.

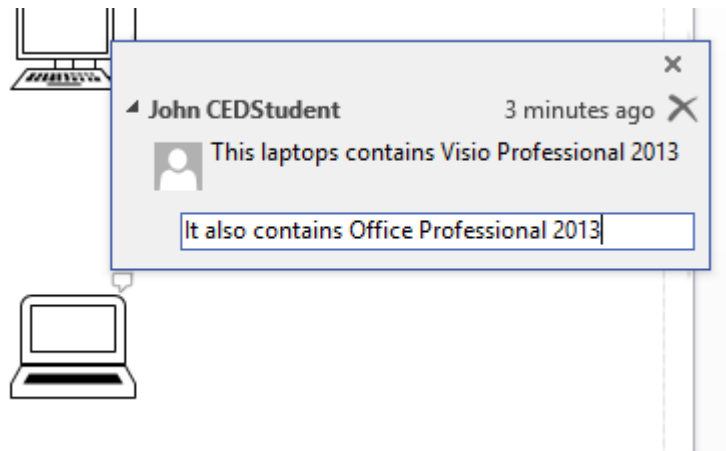


7. Drag a **Laptop** shape from the **Computers and Monitors** stencil onto the page.
8. With the laptop shape still selected, on the **Review** tab, in the **Comments** group, click the **New Comment** button.

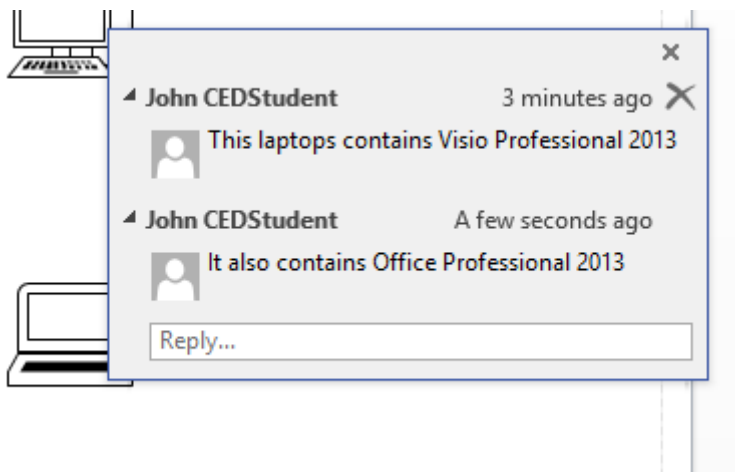


9. Type: **This laptop contains Visio Professional 2013.**
10. Click anywhere on the background of the page to close the comment edit box.
11. Point to the comment balloon but don't click it, which causes Visio to display the word **Comments** but only for as long as you continue to point to the indicator
12. Click once on the comment indicator to view the Visio display of the comment edit box.

13. Click in the **Reply** area of the edit box and type **It also contains Office Professional 2013**



14. Click **Enter** and it will store the comment

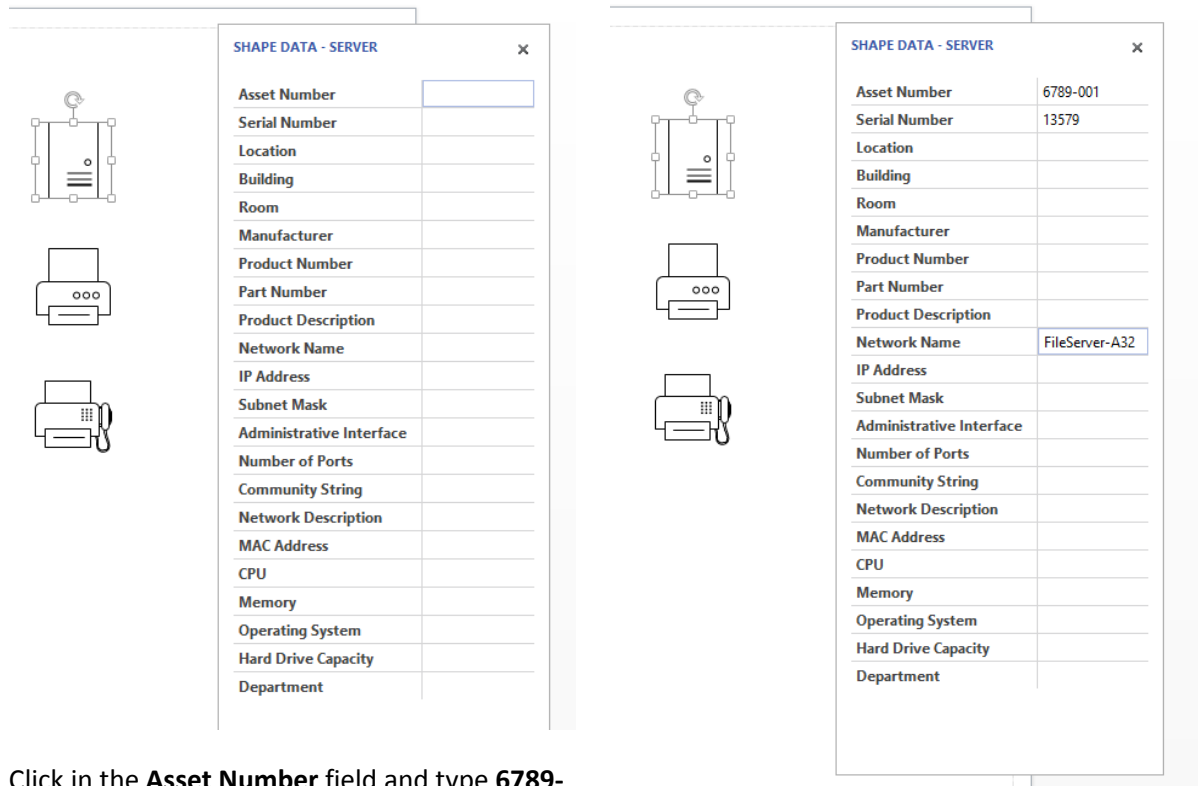


Using Shape Data

A significant part of what gives Visio diagrams uniqueness and value is the data that resides inside Visio shapes. Called **shape data** starting with Visio 2007, data fields were known as **custom properties** in previous versions of Visio

1. Open a new, blank document
2. Open the **Network and Peripherals** stencil.
3. Drag in a **Server, Printer** and **Fax**.
4. Click once on the server shape to select it.

- On the **View** tab, in the **Show** group, click the **Task Panes** button, and then click **Shape Data**. The **Shape Data** window appears and displays the names and current values, if any, for data fields that are contained within the server shape.

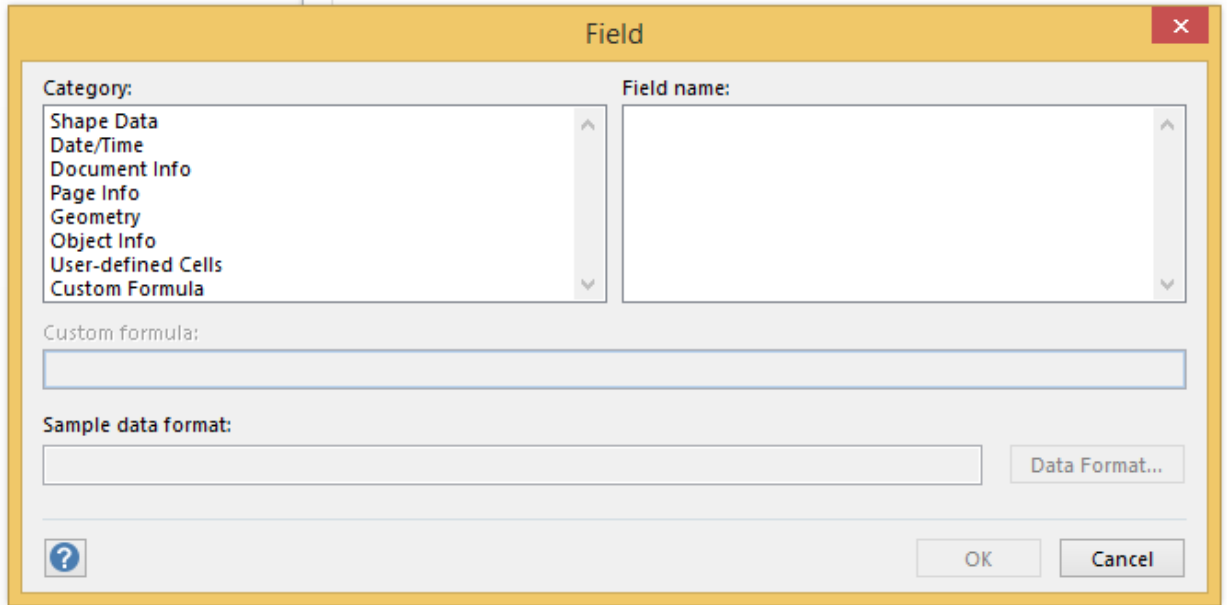


- Click in the **Asset Number** field and type **6789-001**.
- Click in the **Serial Number** field, and type **13579**.
- Click in the **Network Name** field and type **FileServer-A32**.
- Click once on the printer to select it. Notice that the **Shape Data** window now shows the fields that are defined for the printer.
- Click in the **Asset Number** field and type **6449-001**.
- Click in the **Network Name** field, and type **HR-Printer6**.
- Click once on the fax to select it. Notice that there are fewer fields defined for the fax machine.
- Click in the **Manufacturer** field, and type **Contoso**.
- Click the **Product Number** field and type **FX351**.

Inserting fields

- Click once on the server shape to select it.
- On the **Insert** tab, in the **Text** group, click the **Field** button. The **Field** dialog box opens and displays eight categories of field data that can be inserted into a shape.

3. In the **Category** section of the **Field** dialog box, click **Shape Data**. The **Shape Data** fields for this shape appear in the **Field** name section



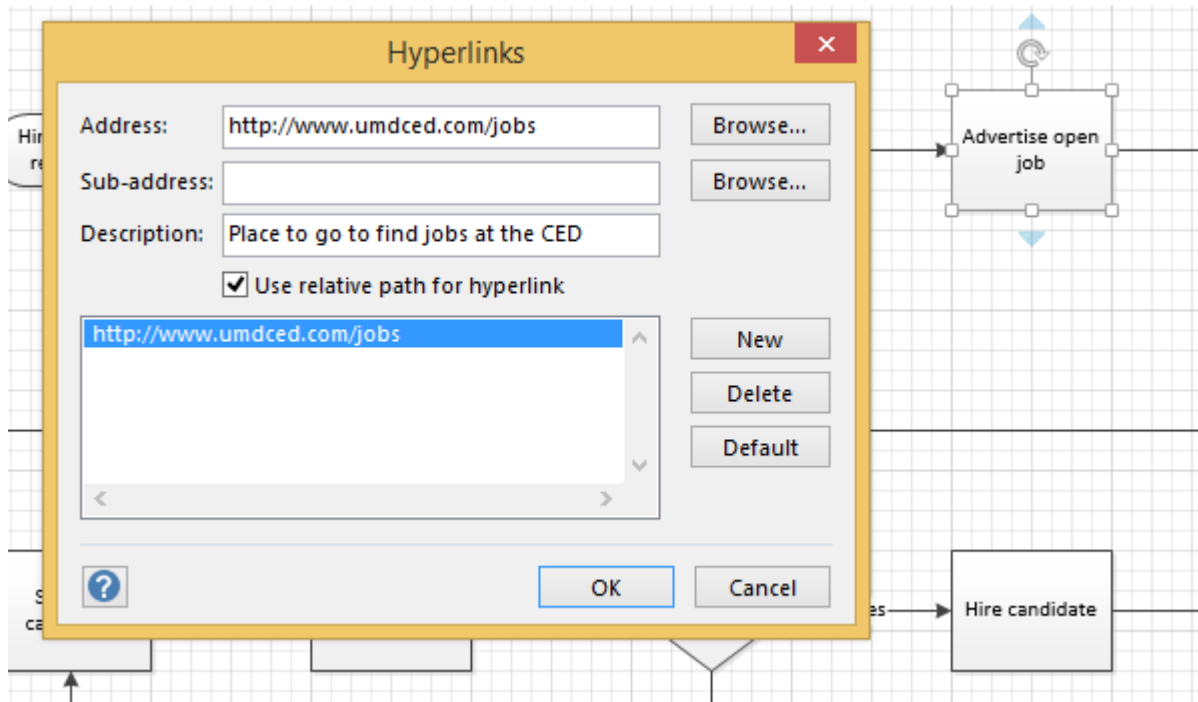
4. Scroll down in the **Field name** section, click **Network Name**, and then click **OK**.
The field you inserted appears under the server.
5. Click once on the printer to select it and then repeat the steps to display the network name for the printer.
6. Click once on the fax to select it and repeat the steps, but this time select **Product Number**.



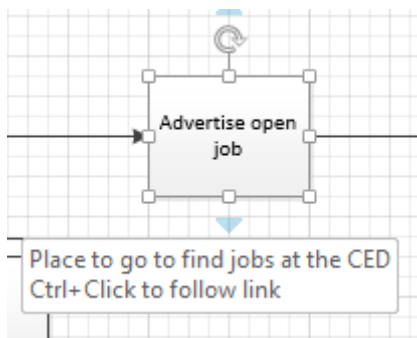
Hyperlinks

This is a great way to go to specific places (on the internet) to help complete a task. The diagram can also link to places within a company's network or even support files.

1. Open the file **HR Process Map**.
2. Click **Advertise open job** shape and then open the **Hyperlinks** dialog box.
3. In the **Hyperlinks** dialog box, type in the following information in the text boxes.



4. Click **OK**
5. Now, when hovering over the shape, a new icon and tooltip will appear.



6. This will also link to documents within the computer.
7. On the Log Hiring Request, Select Hyperlink.
8. Click on Browse, then Local File.
9. Select on the All Files Filter.

10. Browse to a file in Basics of Word Processing and select it.
11. Test it out using Ctrl+Click on the object.

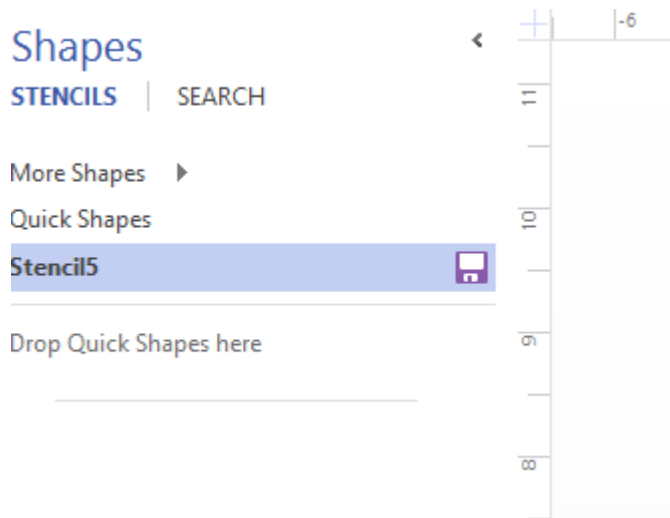
Create your own objects and stencils

What happens when no one has created the shapes you want? You create your own!

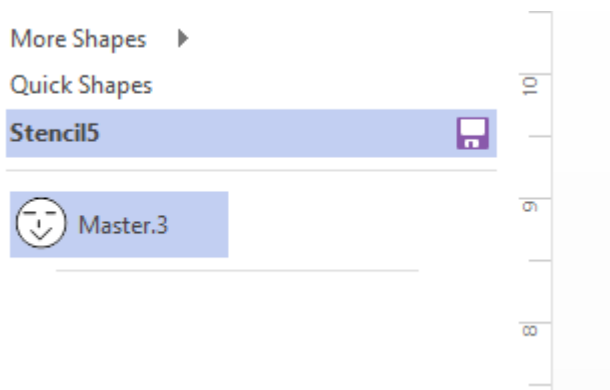
1. Use the drawing tools to create a drawing
2. Select the Pointer Tool from the Tools menu
3. Create a Bounding box around the items to be made into a shape.
4. Right click on the selected items and group them together
5. For us to use this shape, we need to create a new stencil to place it on. Go to the Developer tab and select New Stencil Units)
6. A place appears to drop shapes on the Stencil location



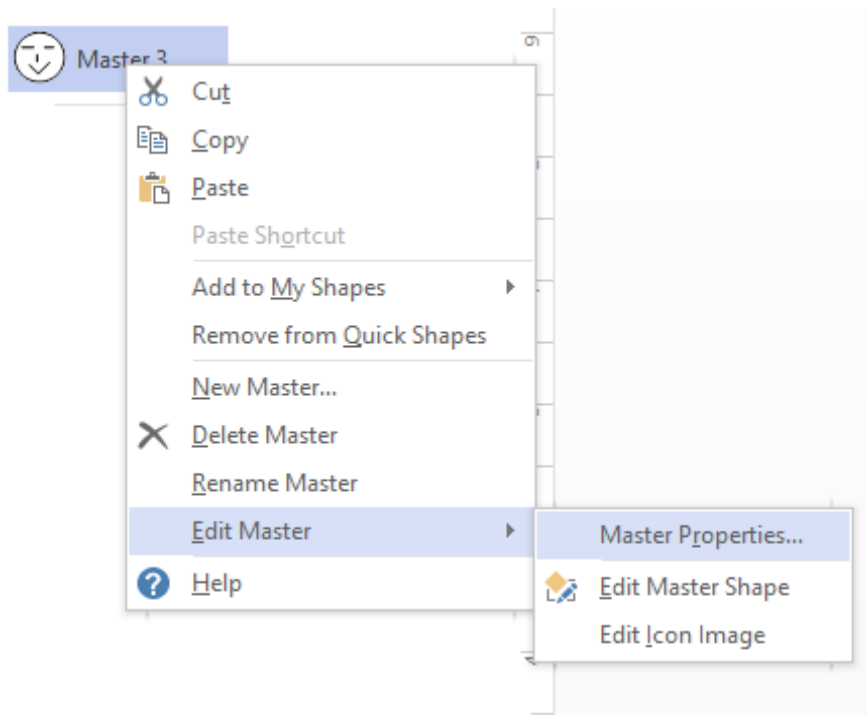
(US



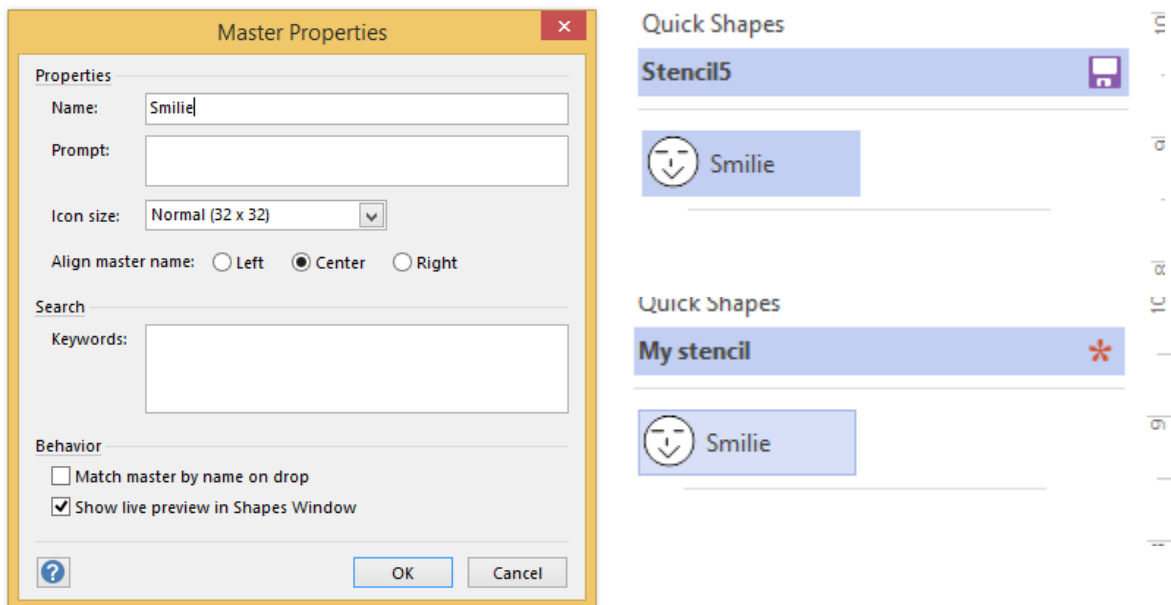
7. Once dropped, a new name will be created.



- To change the name of the item, right click on the item and select Edit Master -> Master Properties.



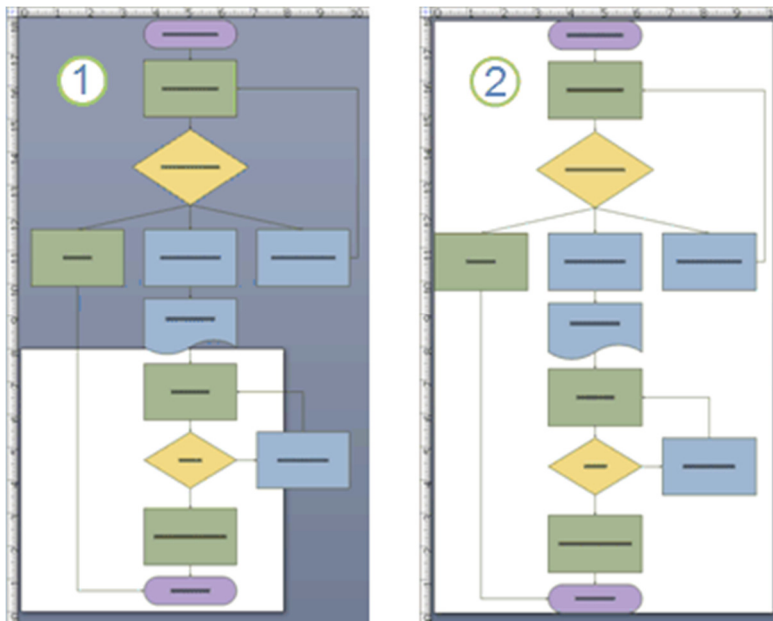
- Change the name of the shape into something more useful and Click OK.
- These changes should then be reflected in the stencil
- Use the floppy disk to name and save the stencil.



Printing large flowcharts

The easiest way to print out a flowchart that is larger than your printer paper is to print it onto multiple pieces of paper and then tape the pieces together.

Before you start printing, however, it's important to make sure that the drawing page, as it appears in Visio, contains the entire flowchart. Any shapes that hang off the edge of the Visio drawing page will not print. You can see whether the drawing page is large enough for the flowchart by checking the preview on the **Page Setup** dialog box (**File** menu, **Page Setup**, **Print Setup** tab).

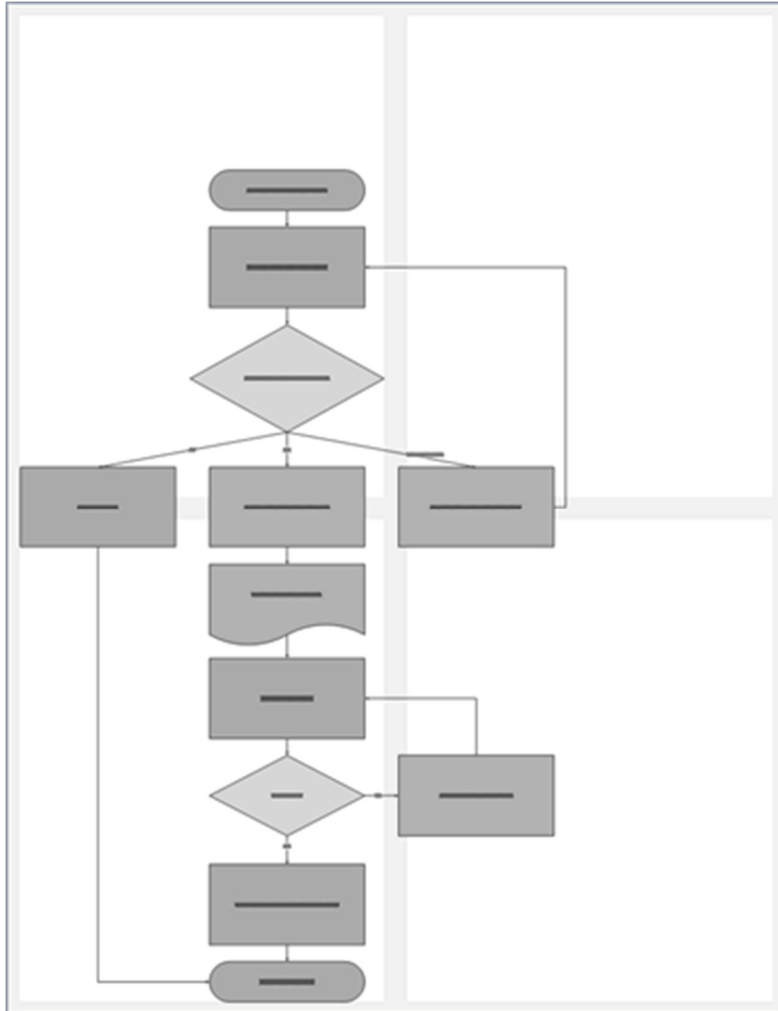


1. A flowchart that is too large for the Visio drawing page.
2. A flowchart that fits the Visio drawing page.

Make your Visio drawing page fit your flowchart

1. With your flowchart open, on the **File** menu click **Page Setup**.
2. Click the **Page Size** tab.
3. Under **Page size** click **Size to fit drawing contents**.

To see how the flowchart will print, look at the **Print Preview**, which is on the **File** menu. The figure below shows a flowchart that prints on four pieces of letter-sized paper.



Print a large flowchart onto multiple pieces of paper

1. On the **File** menu, click **Page Setup**.
2. On the **Print Setup** tab, in the **Printer paper** box, select the paper size you want if it isn't already selected. Don't click **OK** yet.
3. On the **Page Size** tab, click **Size to fit drawing contents**. The preview now shows the difference between the new page and the printer paper.
4. Click **OK**.
5. On the **File** menu, click **Print Preview** to see how the flowchart will print.

NOTE If there are shaded margins between the pages, they mark areas that print on both pieces of paper so that when you assemble the pieces there are no gaps in the flowchart.

6. After the drawing is printed, you can trim the margins, overlap the pages, and tape them together.

Appendix A – Flowchart Shapes

- **Terminator** Use this shape for the first and last step of your process.



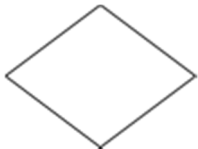
- **Process** This shape represents a step in your process.



- **Predefined process** Use this shape for a set of steps that combine to create a sub-process that is defined elsewhere, often on another page of the same drawing.



- **Decision** This shape indicates a point where the outcome of a decision dictates the next step. There can be multiple outcomes, but often there are just two —yes and no.



- **Document** This shape represents a step that results in a document.



- **Data** This shape indicates that information is coming into the process from outside, or leaving the process. This shape can also be used to represent materials and is sometimes called an Input/Output shape.



- **Stored data** Use this shape for a step that results in information being stored.



- **On-page reference** This small circle indicates that the next (or previous) step is somewhere else on the drawing. This is particularly useful for large flowcharts where you would otherwise have to use a long connector, which can be hard to follow.



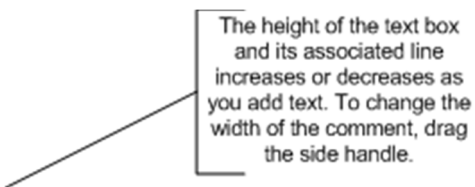
- **Off-page reference** When you drop this shape onto your drawing page, a dialog box opens where you can create a set of hyperlinks between two pages of a flowchart or between a sub-process shape and a separate flowchart page that shows the steps in that sub-process.



Dynamic connector This connector draws a path around shapes it encounters.



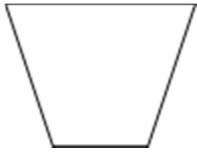
- **Annotation** This bracketed text box adjusts to accommodate the amount of text you type. You can set the width by dragging the sides of the shape. Like the Auto-height box shape, this shape doesn't represent a step in a process. Use this to add comments about your flowchart shapes.



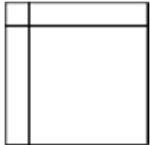
- **Manual input** This is a step where a person provides information to the process.



- **Manual operation** This is a step that must be performed by a person.



- **Internal storage** This shape represents information stored on a computer.



- **Direct data** This shape represents information stored so that any single record can be accessed directly. This represents how a computer hard-drive stores data.



- **Sequential data** This shape represents information stored in sequence, such as data on a magnetic tape. When data is stored in sequence, it must be retrieved in sequence. For example, in order to access record 7 you would have to first go through records 1 through 6.

