

## Visio 2003 Professional Basic Tutorial

This document is I hope a short/quick tutorial on the bare bones basics of how to use Visio for the CIS 103 Programming Logic class. There is a short tutorial built-in to the Visio software under the Help menu (Click Help on the menu, then the Getting Started Tutorial option). You may further explore the features of Visio by doing this tutorial.

### Starting the Visio Program

To start the Visio program:

Click **Start, All Programs, Microsoft Visio 2003**

*Or*

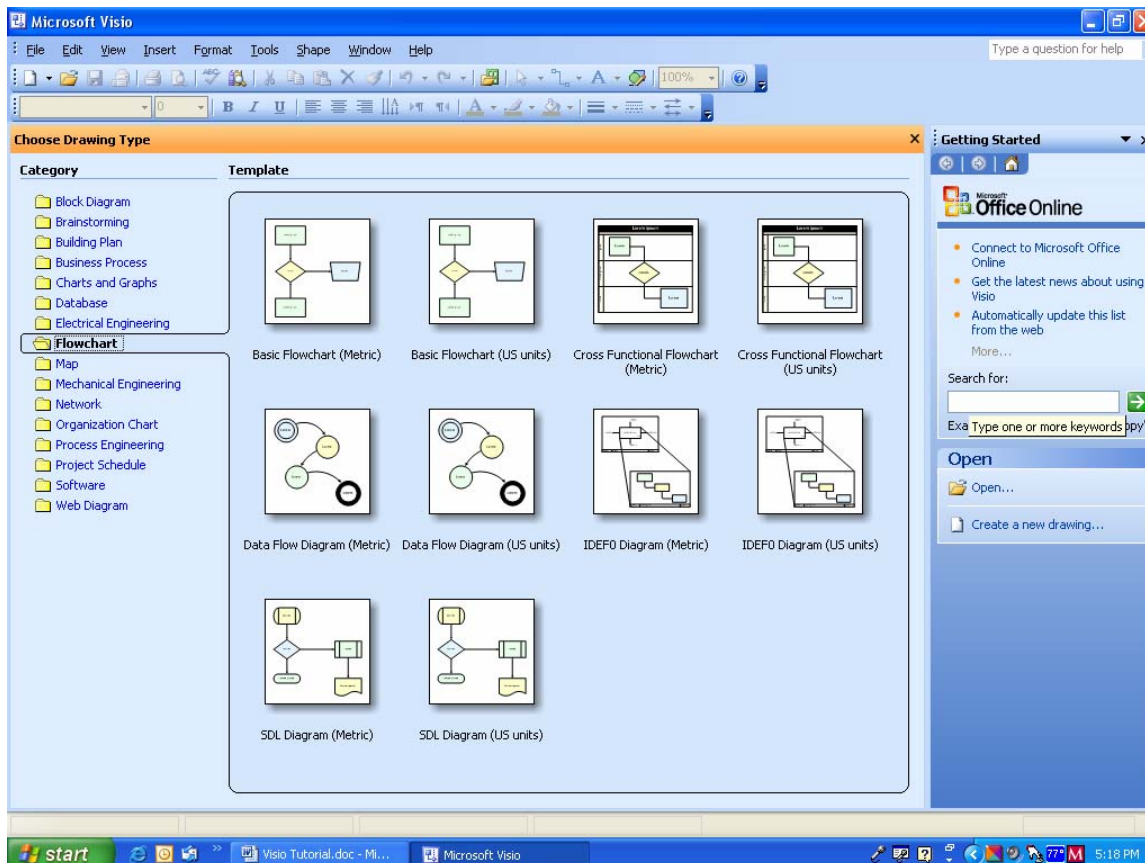
Click **Start, All Programs, Microsoft Office, Microsoft Visio 2003**

### Running the Tutorial (Optional)

1. Click **Help** on the menu, then click the **Getting Started Tutorial** option
2. Follow the instructions on the screen
3. Click the **Next** link to proceed through each lesson
4. Click the **play ►** button to see the animations

### The First Screen in Visio

When first start Visio you may get the following screen:



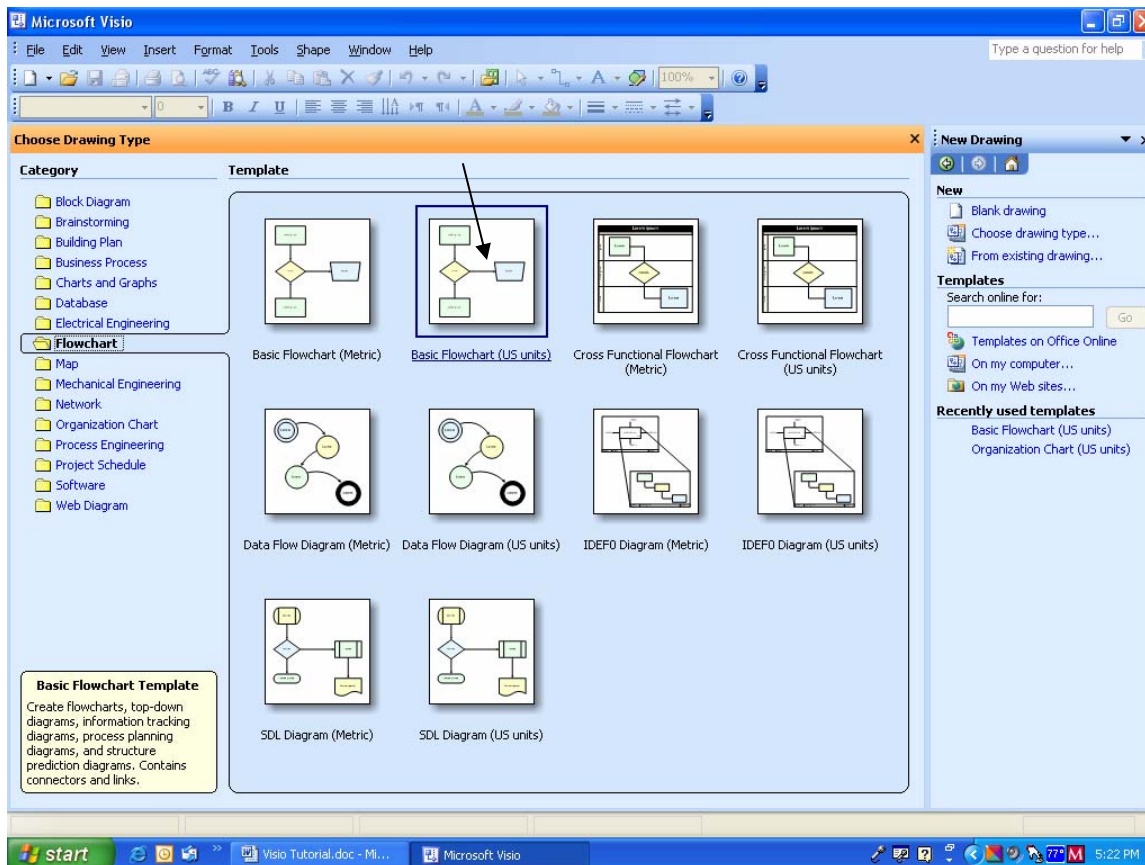
If you don't get the above screen, then follow these steps:

Click **File** on the menu, then **New** and then **Choose Drawing Type**

## Selecting the Basic Flowcharting Template

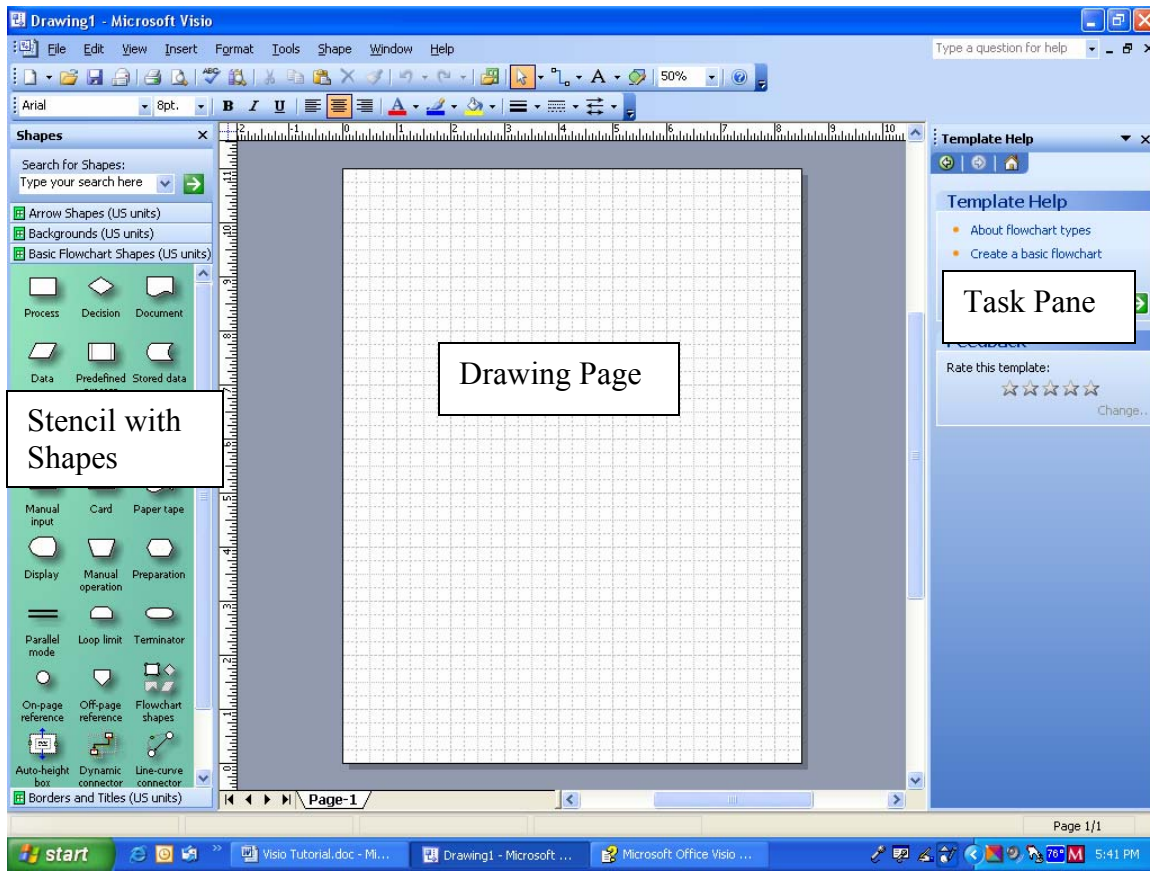
In this class we will be doing program flowcharts. The template we will be using is the Basic Flowchart U.S. version.

1. Click **Flowchart** under the **Category** list on the left side of the Choose Drawing Type window pane.
2. Click **Basic Flowchart (US units)**



## The Drawing Environment

After you open a template, you'll see the Microsoft Office Visio drawing environment, which includes menus, toolbars, stencils with shapes, the drawing page, and a task pane to the right of the drawing page.



You create your drawing on the drawing page, which represents the printed page and includes a grid to help position shapes.

You use the task pane to access various types of information quickly while you work or collaborate with other team members. You can close X this pane if you want more drawing room and less scrolling.

Visio menus and toolbars are similar to those in other Microsoft Office System programs, so you'll find familiar ways to open, print, and save your diagrams.

## Creating a Flowchart

First you add shapes (process, decision, input/output shapes) and text to the shapes. Then you add the connecting lines between the shapes. Next you may want to add free form text to the diagram, such as a title or comments.

## Adding Shapes

Add shapes to your diagram by dragging (hold down the left mouse button and move your mouse) shapes from stencils in the **Shapes** window onto the drawing page. Don't worry too much about lining the shapes up. Visio helps you line up the shapes by "snapping" them to the


grid. Please note that the grid shown on the drawing page does not print out when you print the diagram.


## Deleting Shapes

Deleting shapes is easy. Just click the shape and then press the **DELETE** key.

## Move and Resize Shapes

Moving a shape is easy: just click any shape to select it, and then drag it to a new location. Selection handles appear when you click the shape.

1. With the **Pointer** tool , click the shape to select it.
2. Place the **Pointer** tool over the center of the shape.

A four-headed arrow appears under the pointer , which tells you that the shape is ready to be moved.

You don't have to place the **Pointer** tool exactly over the center of the shape; but it's a good habit to develop so you don't drag a shape handle and resize the shape by mistake.


3. Drag the shape to the desired location on diagram. Release the mouse button.

If you resize the shape by mistake, just undo your last action. (On the **Edit** menu, click **Undo**.)

Please note you can also use your arrow keys to move shapes. Use the combination of the shift key and arrow keys to move the shape in smaller increments.


## Moving More Than One Shape at a Time

To move more than one shape at a time, you first select all the shapes you want to move.

1. With the **Pointer** tool , click a blank area of the drawing page **above** and to the **left** of the top shape, and then drag down and to the right to create a black selection rectangle around all of the shapes.

Alternatively, you could hold down the SHIFT key while you click each shape.



2. Place the **Pointer** tool over the center of any of the selected shapes.

A four-headed arrow appears under the pointer , which tells you that the shapes are ready to be moved.

3. Drag the shapes to their new location on the diagram. All the selected shapes move at once.

### Resizing Shapes


You can resize shapes by dragging their corner, side, or bottom selection handles.

1. With the **Pointer** tool , click the shape you want to resize.
2. Place the **Pointer** tool over a corner selection handle .

The pointer changes to a two-headed arrow , which tells you that the shape can be resized.

3. Drag the selection handle inward to decrease the size of the shape. Drag the selection handle outward to increase the size of the shape.


### Resizing Multiple Shapes at One Time

You can resize multiple shapes at once by selecting all of the shapes you want to resize, and then dragging one of the selection handles  that appear on the green selection rectangle that encloses all of the shapes.

### Adding Text to Shapes


You can add text to shapes. Just click a shape and begin typing; Microsoft Office Visio zooms in so you can see the text as you type.

1. Click the shape on the drawing page, and then type the desired text.

Alternatively, you could click the **Text** tool , click the shape, and then type.


2. Click a blank area of the drawing page or press the **ESC** key to exit the text mode.

### Deleting Text from a Shape


Double-click the shape, and then, with the text highlighted, press the **DELETE** key. Or click the **Text** tool , click the shape, highlight the text you want to delete, and then press the **DELETE** key. If you delete the shape by mistake, on the **Edit** menu, click **Undo**.

## Adding Independent Text to the Diagram

You can also add text that's not associated with any shape, such as a title or list, to the drawing page. This type of text is called independent text or a text block. Use the **Text** tool to just click and type.

1. Click the **Text** tool .
2. Click the page where you want the text to appear on the diagram
3. Then type the desired text.

## Deleting Independent Text

Click the **Pointer** tool , click the text, and then press the **DELETE** key.

## Moving Independent Text

You can move independent text as you move any other shape: just drag it. In fact, independent text is really just a shape with no border or color.

## Formatting Text

You can format text—italicize it, underline it, center it, and so on—the same way you format text in any Microsoft Office System program. You can use buttons on the toolbar or options in the **Text** dialog box (on the **Format** menu).


## Connecting the Shapes with the Connector Tool


In Visio, you create connections by attaching, or gluing, one-dimensional shapes called connectors to two-dimensional shapes.


Connectors stay glued when you move the shapes. For example, when you move a flowchart shape connected to another shape, the connector repositions to keep its endpoint glued to both shapes.

You use the **Connector** tool to create connections.



**Note** People new to Microsoft Office Visio often use the **Line** tool to connect shapes. Using the **Connector** tool is a much better method. When you use the **Connector** tool, connectors reroute, or bend, automatically when you move one of the connected shapes. When you use the **Line** tool to connect shapes, the connectors don't reroute.

1. To zoom in on the top two shapes, hold down the CTRL+SHIFT keys while you drag a selection rectangle around the shapes.
2. Click the **Connector** tool .

3. Place the **Connector** tool over the connection point  on the bottom of the first **Process** shape.

The **Connector** tool highlights the connection point with a red box , which tells you that a connection can be made at that point.

4. Drag the **Connector** tool from the connection point on the first shape to the connection point at the top of the second **Process** shape.



The connector endpoints turn red  when the shapes are connected. This is an important visual cue. If one of the connector's endpoints is still green , use the **Pointer** tool to connect the endpoint to the shape. Both endpoints must be red if you want the shapes to stay connected.


5. To zoom out, press the CTRL+W keys.
6. Experiment with selecting and moving a shape. Notice that the text moves with the shape and the connector reroutes and remains connected to the two shapes.

The connector reroutes because you used the **Connector** tool (and not the Line tool) to connect the shapes.

### Connecting Shapes Using Connectors in a Stencil

You can also connect shapes with connectors from stencils. For example, in a block diagram, you can drag two-dimensional arrows from a stencil and connect them to boxes.

1. For example connect two shapes with the Line-Curve connector. From the **Basic Flowchart Shapes** stencil in the **Shapes** window, drag the **Line-curve connector**, and position it so the endpoint  of the plain end of the connector connects to the connection point  on the side of the **first** shape.

The **Line-curve connector** endpoint turns red  when it is connected to the shape. The other endpoint is still **green** because you haven't connected it to a shape yet.

2. Drag the other endpoint of the arrowhead end of the **Line-curve connector** onto the connection point on the side of the **second** shape.

Both connector endpoints turn **red** when the shapes are connected.

## Adding Text to Connectors

You can use text with connectors to describe relationships between shapes. Add text to connectors the same way you add text to any shape—just click a connector and type. A good example would be for Decision symbols. One arrow will have Yes or True and the other arrow will have No or False.

## Adding Shapes Between Connected Shapes

If you want to add a new shape between two connected shapes, you can. Just drag the new shape on top of the connector, and all three shapes automatically connect.

**Note** This works in the flowchart, electrical engineering, and process engineering templates.

## Saving the Diagram

After you finish a diagram, you can save it the same way you save a file created in any Microsoft Office System program.

**Note** It's a good idea to periodically save your diagram as you work.

1. On the **File** menu, click **Save As**.
2. In the **File name** box, type *Flowchart*, and then click **Save**.


## Previewing and Printing the Diagram

Before you print a diagram, you can preview it to ensure it will print correctly. In the **Print Preview** window, the gray boundary indicates the drawing page margins and edge of the printed page. Shapes that overlap this boundary won't print completely. Either move them or adjust your drawing page or printer settings, such as orientation, size, or margins. (To adjust page or printer settings, on the **File** menu, click **Page Setup**.)

1. On the **File** menu, click **Print Preview**.

Alternatively, you can click the **Print Preview** button .

2. On the **File** menu, click **Print**.

If you only want to print the current drawing page, you can click the **Print Page** button  instead.

3. In the **Print** dialog box, click **OK**.
4. To exit print preview, on the toolbar, click **Close**.

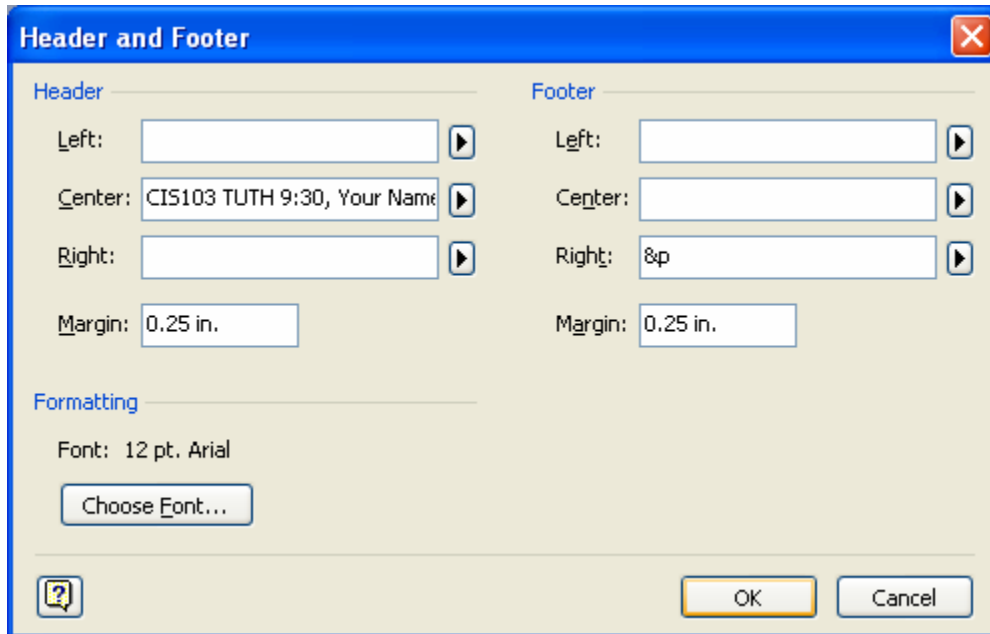
## More Tips

Sometimes you will have several pages in a project. So you will need to know how to add a new page and page numbers. Also, it is a good idea to add headings that repeat at the top of each page, such as “CIS 103 TUTH 9:30, Your Name.” The following sections show you how to add a new page, add page numbers and a header.

### Adding a Header and Footer

The steps are:

1. Select **View** from the menu.
2. Select the **Header and Footer** option, you will get the Header and Footer dialogue box:



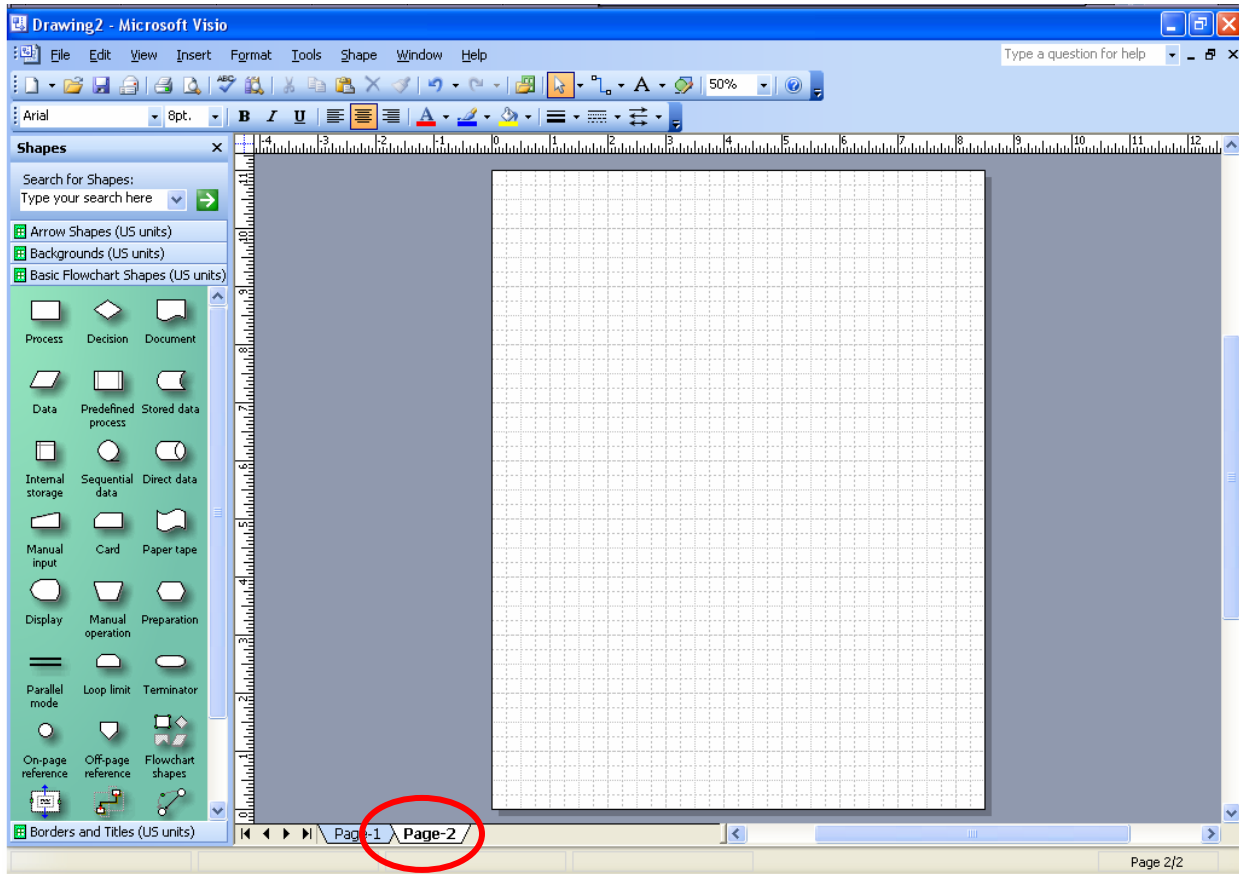
3. On the left side (Header), in the Center textbox type: **CIS103 TUTH 9:30, Your Name**. This will create a centered header at the top of each page.
4. On the right side (Footer), for the Right textbox click the ► button, then click the **Page number** option. It will insert the page code &p. This will create a footer at the bottom of each page with the page number on the right margin.
5. Click the **OK** button.
6. Click the **Print Preview** button on the menu.

You will not be able to see the header and footer on the diagram page. You will only see them when you Print Preview or Print the document.

## Adding a New Page

To add a new page to your project, so the following steps:

1. Select **Insert** from the menu.
2. Select the **New Page** option.
3. Click the **OK** button. A new sheet of paper will be added to the project.
4. Click the **Page-2 tab** to go to the new page.



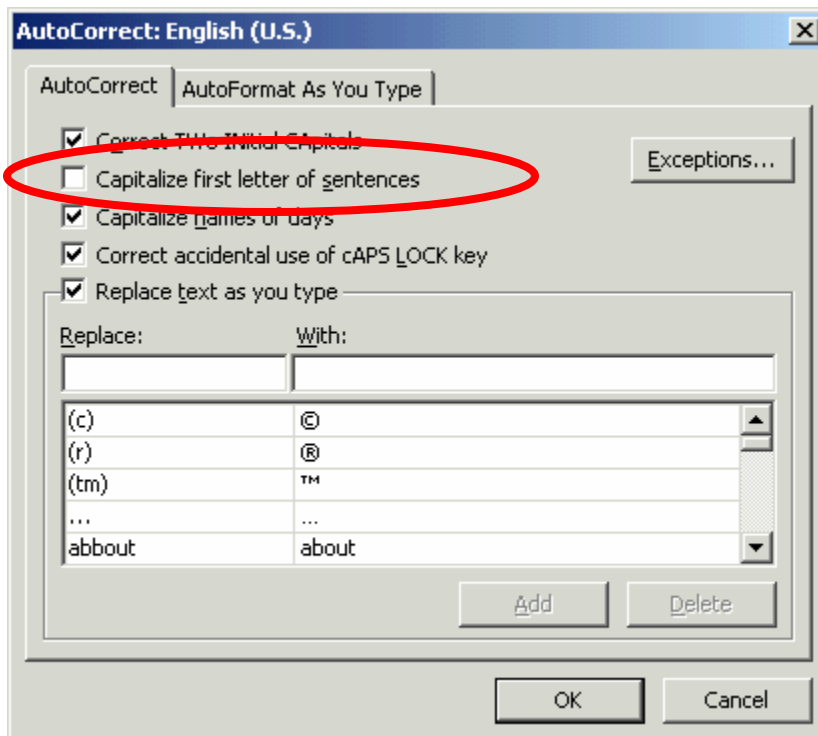
5. You now can begin to work on the second page. Also you may copy textboxes, shapes, lines, etc. from the first page as needed.

Please note the header and footer you created earlier will be printed and displayed in the Print Preview window.

### Changing the AutoCorrect Settings:

Well if you are like me then you are tired of retyping the first character in a shape. Have you noticed that as you type in a shape Visio automatically capitalizes it? I hate this. To change this setting you do the following:

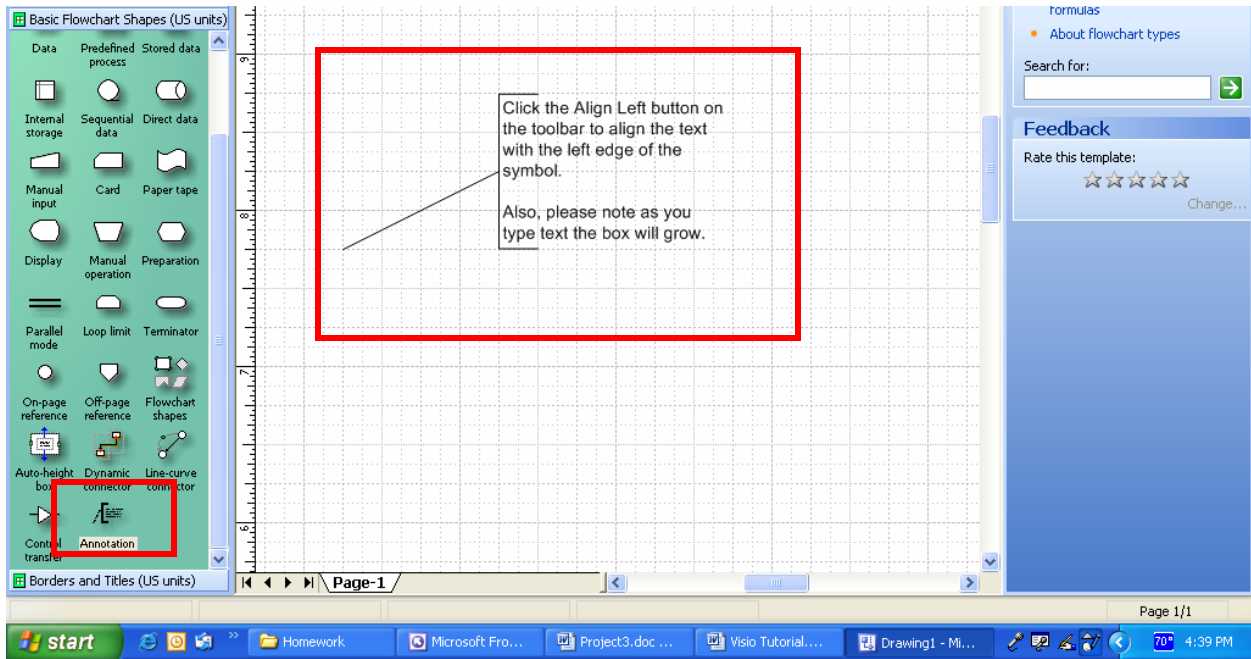
1. Select **Tools** on the menu.
2. Select **AutoCorrect Options**.
3. Remove the check mark on the **Capitalize first letter of sentences** option.



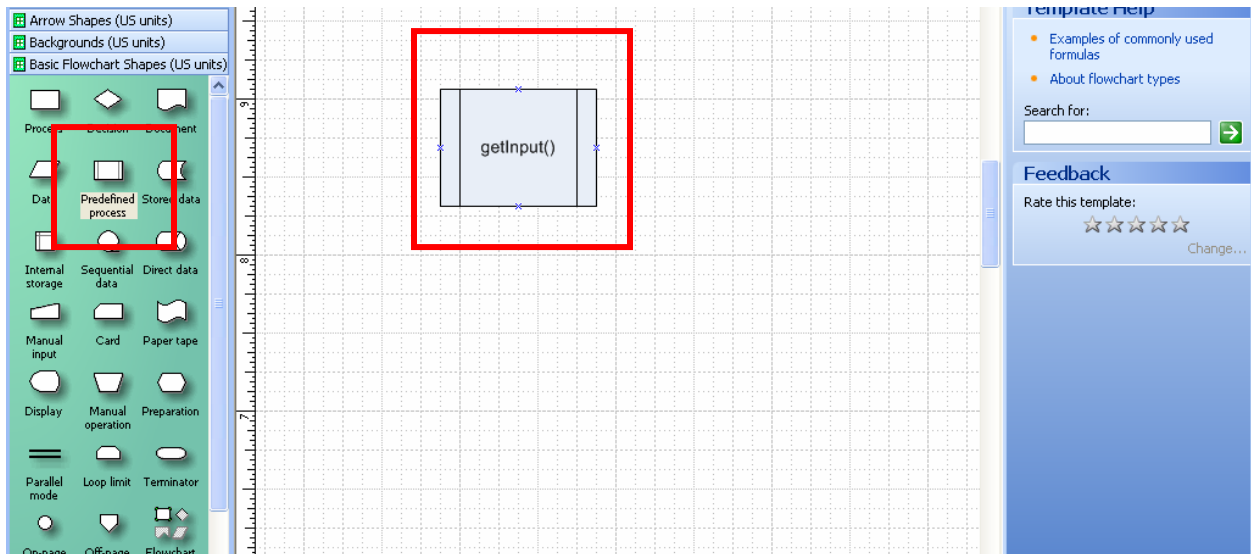
4. Click the **OK** button.

**More Symbols:**

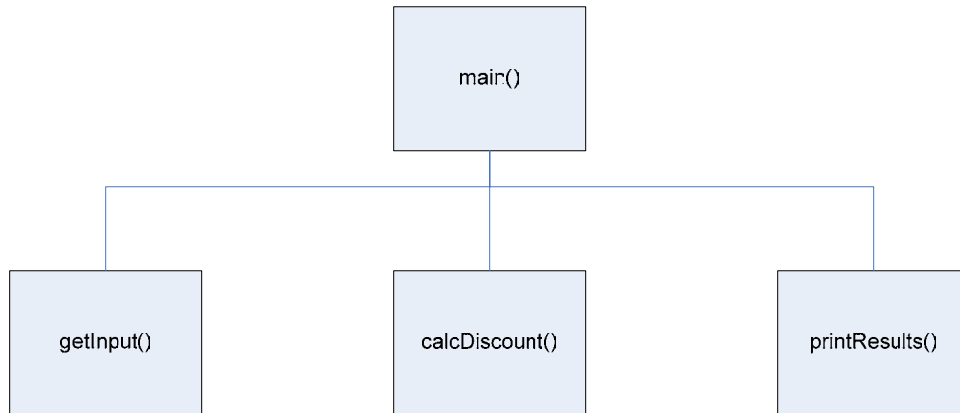
For the annotation symbol use:



For the module symbol use the predefined process symbol:



For Hierarchy Charts:



For hierarchy charts use the plain process symbol and no arrowheads on the flow lines. You draw the chart and add the flow lines using the connection tool like you normally would do. The flow lines will have arrowheads. You need to remove the arrowheads. To remove the arrowheads do the following steps:

1. Select the flow line by clicking it. You should see the connection points (red squares) and sizing handles (green X's) on the line.
2. On the Formatting Toolbar, select the Line Ends button, and then select the No Lines Ends Option:

