Connected Diagrams

For an overview of the best way to create a connected diagram, see "The Big Picture."

To create a flowchart, network diagram, organization chart, or cause and effect diagram as quickly as possible, turn directly to the "Creating..." topic for the diagram you want to draw.

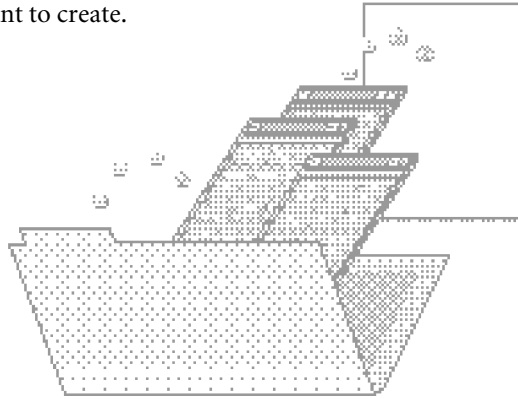For detailed information, see the In Depth topics in this and other chapters.
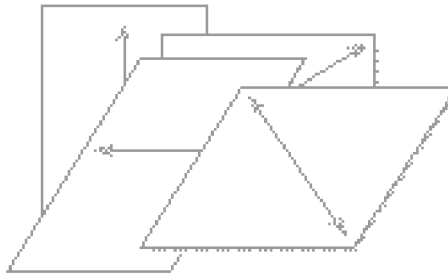
Topics in this chapter

THE BIG PICTURE

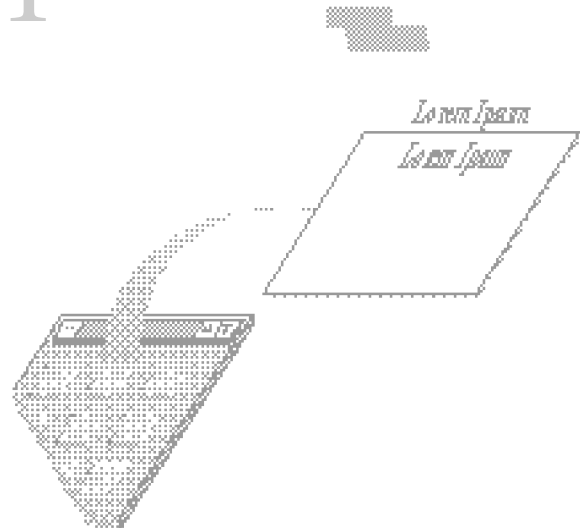1 Open a template for the kind of connected diagram you want to create.

2 Set up the drawing page.

3 Title your diagram.

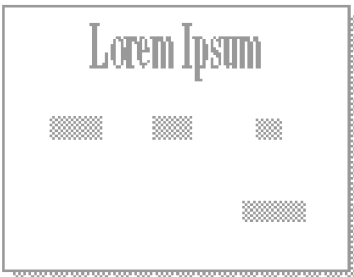Lorem Ipsum

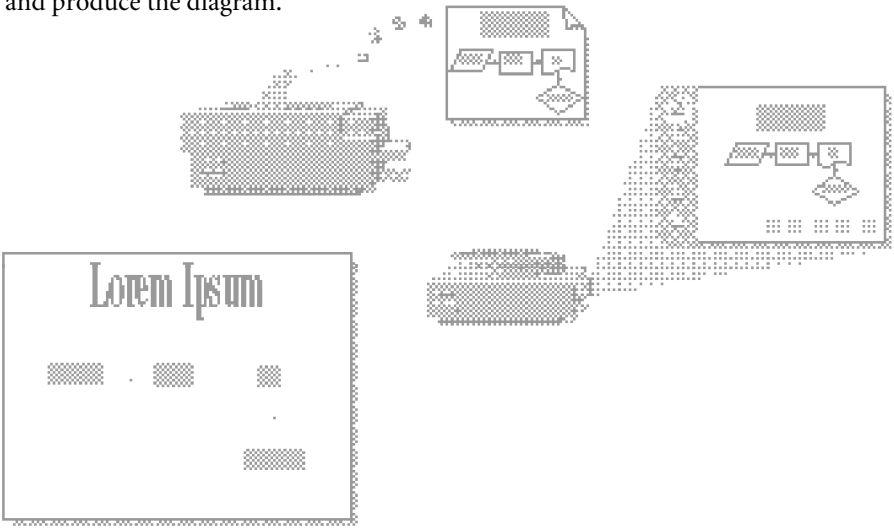4 Drag and drop to connect two-dimensional shapes.

Lorem Ipsum
Lorem Ipsum

5 Add text to the shapes.

Dolor
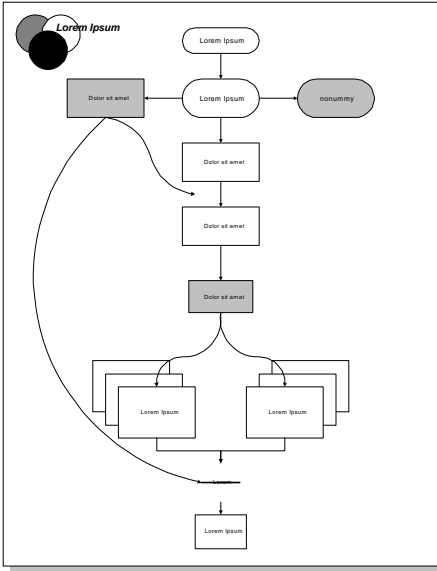
Asp : Sit

Lorem

6 Refine the diagram.

Lorem Ipsum

**7** Save and produce the diagram.

Lorem Ipsum

CREATING A FLOWCHART

We've provided complete instructions for creating a flowchart. To create your particular flowchart, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

To open the flowchart template:

1. Start Visio.

2. In the New box, under Based On, choose Flowchart Template, then click OK.
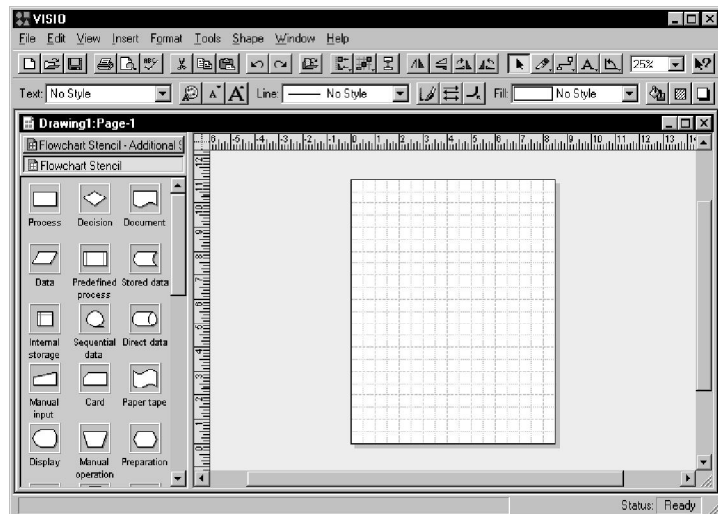
Visio opens a new file with a blank drawing page.

Or, you can choose to open the Flowchart Wizard template in the New box. The Wizard guides you through the process of creating a flowchart, and of choosing page size, orientation, and other layout features.
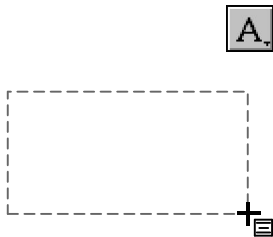
To set up the drawing page:
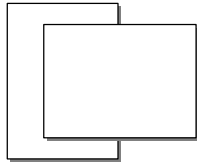
1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Drawing Size/Scale box, click Same As Printer or choose a standard or custom drawing page size, then click OK until you return to the drawing page.

For more details, see:

To title a flowchart:

1. From the toolbar, choose the text tool.

2. With the crossbar, point to where you want your flowchart title to start, then click and drag a box about the size you think your title will be.

3. Type the title.

4. From the Format menu, choose Font.

5. In the Font box, choose the title text's font, size, color, and style, then click OK.

6. From the toolbar, choose the pointer tool.

7. Click the title text block to select it.

8. Drag a selection handle to change the text block width or height.

9. Position the pointer over the text block. When the pointer turns white, drag the text block to where you want it to appear on the page.
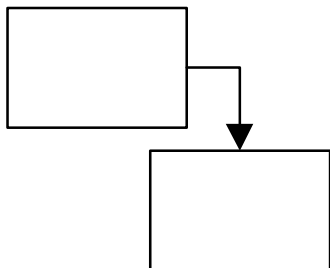
For more details, see:

To drag shapes onto the drawing page and connect them:

1. From the toolbar, choose the connector tool.

2. Drag and drop a two-dimensional shape.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

3. With the first shape selected, drag and drop a second shape. Visio automatically connects the shapes.

4. Drag and drop enough shapes to build the flowchart. Each new shape connects to the selected shape.

5. Use the grid to align shapes on the page.

For more details, see:
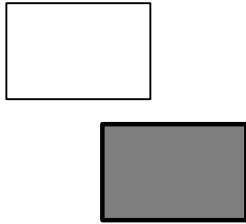
To add text to shapes:

1. Select the shape or connector you want to add text to.

2. Type the text. Visio zooms in on the selected shape as you type.

3. Press the ESC key to return to the original magnification.

For more details, see:

Working with Text 168

Refine the look of a flowchart

To change the way a shape looks:

1. Select the two-dimensional shape or connector you want to format.

2. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

3. From the Format menu, choose Line. In the Line box, choose the options you want, then click OK.

To change the way text looks:

1. Select the shape that includes text or the text block you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

To rearrange shapes on the page:

1. Select the shape you want to rearrange, then drag it to a new location. The shape retains its connections, although the connector may move to another point on the shape.

To move a connection from one shape to another:

1. Select the connector you want to move.

2. Place the pointer over a connector endpoint, where it turns into a four-headed arrow.

3. Press the CTRL key and drag the connector's endpoint from the original shape to the new shape you want to connect.

For more details, see:

To link a flowchart shape to a page or document:

1. Right-click the shape you want to link.

2. From the shortcut menu, choose Link To Page or Link To Doc.

3. In the Link To Page box, choose the options you want and click OK; or, in the Link To Document box, choose the document you want to link to, then click Open.

For more details, see:

To associate data with a flowchart shape:

1. Right-click the shape, then choose Custom Properties from the shortcut menu.

2. In the Custom Properties box, enter values for the properties, then click OK.

For more details, see:

Save and produce the flowchart

To name and save a completed flowchart:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the flowchart, choose the other options you want, then click Save.

To print a flowchart:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

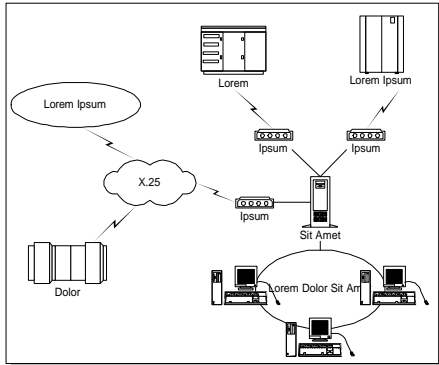*To place a copy of the flowchart in another document:*

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your flowchart file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

CREATING A NETWORK DIAGRAM

We've provided complete instructions for creating a network diagram. To create your particular diagram, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.
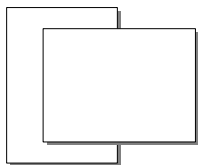
To open the network template:

1. Start Visio.

2. In the New box, under Based On, choose Network Template, then click OK.
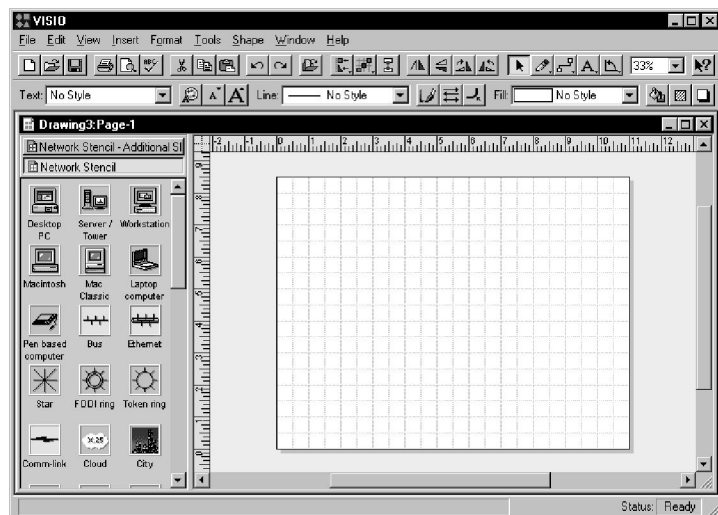
Visio opens a new file with a blank drawing page.

To set up the drawing page:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Drawing Size/Scale box, click Same As Printer or choose a standard or custom drawing page size, then click OK.

For more details, see:

To title a network diagram:
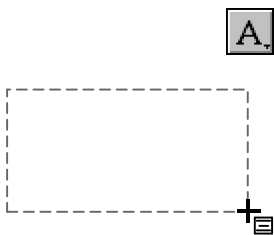
1. From the toolbar, choose the text tool.

2. With the crossbar, point to where you want your network diagram title to start, then click and drag a box about the size you think your title will be.

3. Type the title.

4. From the Format menu, choose Font.

5. In the Font box, choose the title text's font, size, color, and style, then click OK.

6. From the toolbar, choose the pointer tool.

7. Click the title text block to select it.

8. Drag a selection handle to change the text block width or height.

9. Position the pointer over the text block. When the pointer turns white, drag the text block to where you want it to appear on the page.
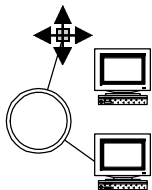
For more details, see:

To drag shapes onto the drawing page and connect them:

1. Drag and drop a Ring shape, Bus shape, or Ethernet shape.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. Drag and drop computer and box shapes in the vicinity of the Ring, Bus, or Ethernet shape.

3. Select the Ring, Bus, or Ethernet shape.

4. Place the pointer over a control handle. When the pointer changes to a four-way arrow, drag it to the connection point on one of the computer or box shapes.

5. Continue dragging control handles to connection points until all the computer and bus shapes are connected.

For more details, see:

To add text to shapes:

1. Select the shape or connector you want to add text to.

2. Type the text. Visio zooms in on the selected shape as you type.

3. Press the ESC key to return to the original magnification.

For more details, see:

Refine the look of a network diagram

To change the way a shape looks:

1. Select the shape you want to format, or select the shape and then click one of its parts to subselect it.

2. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

3. From the Format menu, choose Line. In the Line box, choose the options you want, then click OK.

To change the way text looks:

1. Select the shape that includes text or the text block you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

To move a connection from one shape to another:

1. Select the connector you want to move.

2. Place the pointer over a connector endpoint, where it turns into a four-headed arrow.

3. Drag the connector's endpoint from the original shape to the new shape you want to connect.

To rearrange shapes:

1. Select the shape you want to move, then drag it to a new location. The shape retains its connections.

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For more details, see:

To link a Cloud or City shape to a page or document:

1. Right-click the Cloud or City you want to link.

2. From the shortcut menu, choose Link To Page or Link To Doc.

3. In the Link To Page box, choose the options you want and click OK; or, in the Link To Document box, choose the document you want to link to, then click Open.

For more details, see:

To associate data with a network shape:

1. Right-click the shape, then choose Custom Properties from the shortcut menu.

2. In the Custom Properties box, enter values for the properties, the click OK.

For more details, see:

Save and produce a network diagram

To name and save a completed network diagram:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the network diagram, choose the other options you want, then click Save.

To print a network diagram:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

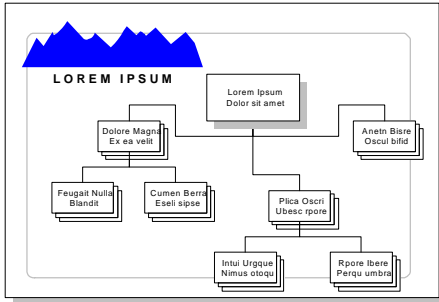*To place a copy of the network diagram in another document:*

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your network diagram file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

CREATING AN ORGANIZATION CHART

We've provided complete instructions for creating an organization chart. To create your particular chart, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

### To open the organization chart template:

1. Start Visio.

2. In the New box, under Based On, choose Orgchart Template, then click OK.
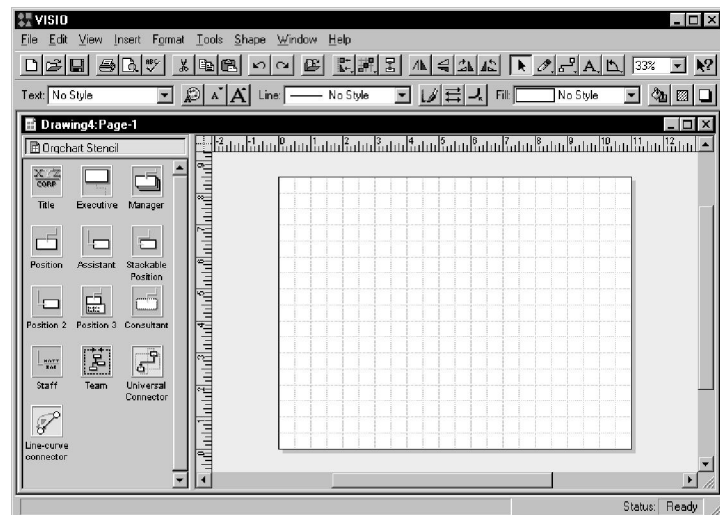
Visio opens a new file with a blank drawing page.

Or, you can open the Orgchart Wizard template in the New box. The Wizard guides you through the process of creating an organization chart based on data in a text or spreadsheet file. It also helps you lay out and format organization chart shapes, connectors, and text.

To set up the drawing page:
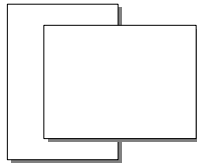
1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Drawing Size/Scale box, click Same As Printer or choose a standard or custom drawing page size, then click OK.

For more details, see:

To title an organization chart:

1. Drag and drop the Title shape, then position it where you want the title to appear on the page. Type to replace existing company name text. The date is a field that will update automatically.

For more details, see:

To drag shapes onto the drawing page and connect them:

1. Drag and drop the organization chart shapes you want to use.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. Select a shape that you want to connect to another shape above it in the hierarchy.

3. Place the pointer over a control handle on the selected shape. When the pointer changes to a four-way arrow, drag it to a connection point on the shape to which you want the selected shape to connect.

4. Continue dragging control handles to connection points until all the shapes are connected.

For more details, see:

To add text to shapes:

1. Select the shape you want to add text to.

2. Type the text. Visio zooms in on the selected shape as you type.

3. Press the ESC key to return to the original magnification.
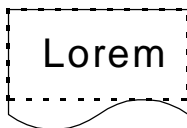
For more details, see:

Refine the look of an organization chart

To change overall organization chart appearance:

1. Click the page where there are no shapes.

2. Right-click and from the shortcut menu, choose Orgchart Properties.

3. In the Custom Properties box, choose the options you want for hiding or showing boxes and dividers, and for connector offset.

To change the way a shape looks:

1. Select the shape you want to format.

2. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

3. From the Format menu, choose Line. In the Line box, choose the options you want, then click OK.

4. Right-click the shape, then choose Executive Properties, Manager Properties, or Position Properties from the shortcut menu.

5. In the Custom Properties box, choose the options you want for hiding or showing boxes and dividers, and for connector offset.

To change the way text looks:

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1. Select the shape that includes text or the text block you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

For more details, see:

To link a department page to a shape:

1. Right-click the shape you want to link.

2. From the shortcut menu, choose Make Department.

3. In the Make Department box, choose the options you want and click OK. Visio cuts all the shape's subordinates from the original chart, opens a new page, and drops them on it. Use the right mouse button to move between the page and the shape it's linked to.

For more details, see:

To associate data with an organization chart shape:

1. Right-click the shape, then choose Executive Properties, Manager Properties, or Position Properties from the shortcut menu.

2. In the Custom Properties box, enter the data you want, then click OK.

For more details, see:

Save and produce the organization chart

To name and save a completed organization chart:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the organization chart, choose the other options you want, then click Save.

To print an organization chart:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the organization chart in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your organization chart file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

CREATING A
CAUSE AND EFFECT DIAGRAM

We've provided complete instructions for creating a cause and effect diagram. To create your particular diagram, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

To begin a cause and effect diagram:

1. Start Visio.

2. In the New box, under Based On, choose Total Quality Management Wizard template, then click OK.
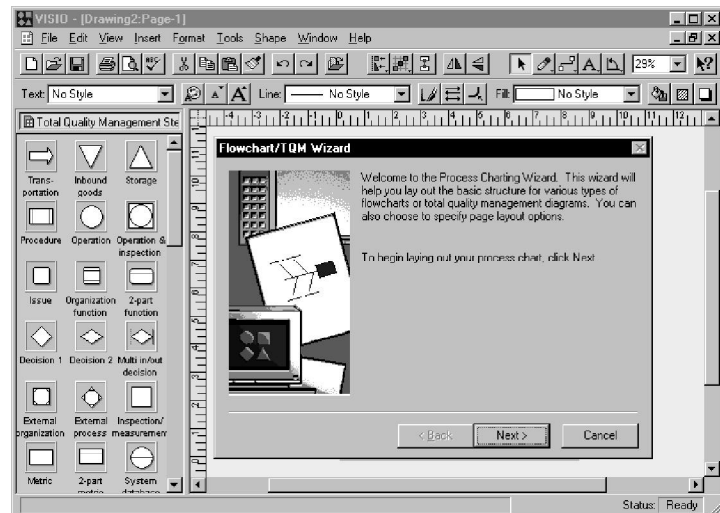
Visio starts the wizard.

3. When the Wizard prompts you to choose the type of process you want to draw, check Cause and Effect.

4. Follow the Wizard's instructions to choose the major categories and the effect, and to choose page size, orientation, and other page layout features.

To drag and drop cause shapes:
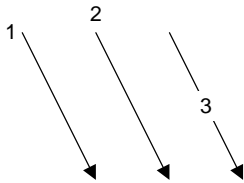
1. Choose a cause shape (Cause 1, Cause 2, or Cause 3), then drag and drop the number of shapes you need.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. Select a cause shape, then choose Flip Horizontal from the Shape menu to get the shape to face the direction you want.

3. Align the tips of the cause arrows with the category lines.

4. Select a cause shape and type to replace the existing text.

For more details, see:

Refine the look of the cause and effect diagram

To change the way a shape looks:
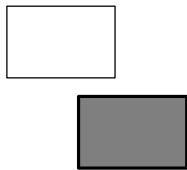
1. Select the shape you want to format.

2. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

3. From the Format menu, choose Line. In the Line box, choose the options you want, then click OK.

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To change the way text looks:

1. Select the shape that includes text or the text block you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

To link a cause and effect shape to a page or document:

1. Select the shape you want to link.

2. From the Tools menu, choose Run Add-on, then choose Link To Page or Link To Document.

3. In the Link To Page box, choose the options you want and click OK; or, in the Link To Document box, choose the document you want to link to, then click Open.

Save and produce the cause and effect diagram

To name and save a completed diagram:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the diagram, choose the other options you want, then click Save.

To print a diagram:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the diagram in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your diagram file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

DRAGGING AND DROPPING SHAPES

In Visio, the easiest way to draw is to drag shapes from stencils and drop them onto a drawing page.

Shapes you drag and drop have a stacking order. The first shape you drop is on the bottom and the last shape is on the top.

In many situations, the top, or primary, shape determines how other shapes behave. You can make any shape primary by selecting it or by changing its stacking order.

For related information, see online Help: press F1, click Search, click Index, then type "drag" or "stack."
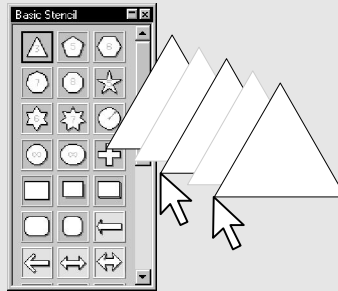
Pause while dragging to see the shape itself rather than just an outline of the shape.
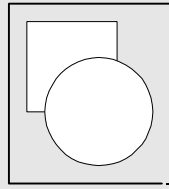
When you select shapes by dragging a selection net around them, the top shape is automatically primary.
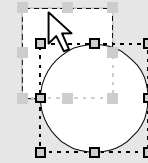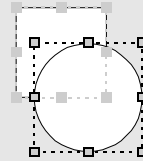
When you shift-click to select multiple shapes, the shape you select first is primary.

To drag and drop a shape on the drawing page:

1. From the toolbar, choose the pointer tool.

2. In the stencil window, point to the icon for the shape you want to place on the drawing page.

3. Hold down the left mouse button and drag.
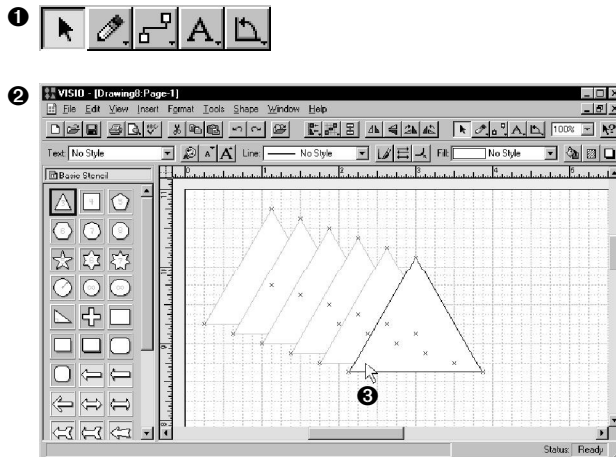
To copy a shape on the drawing page:

1. Hold down the mouse button on the shape.

2. Press the CTRL key, then drag a copy of the shape to the new location.

3. Press the F4 key to add more shapes offset the same amount.

Tip: You can also quickly add multiple copies of a shape using the stamp tool. From the connection tool menu on the toolbar, select the stamp tool. On the stencil, click the master shape on the stencil that you want to copy, then click on the page where you want the copies.
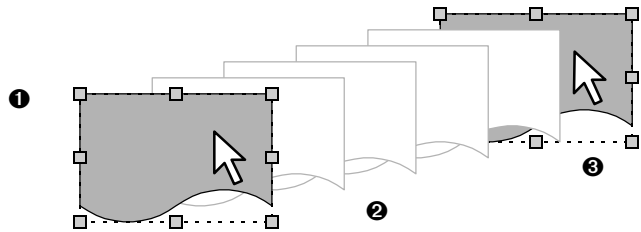
To copy a shape and align the copies with the original:

1. Hold down the mouse button on the shape.

2. Press the CTRL and SHIFT keys, then drag a copy of the shape to the new location.

3. Press the F4 key to add more shapes offset the same amount.
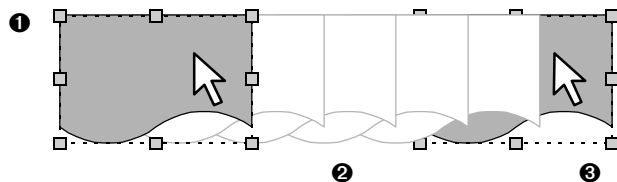
How to Select Shapes

To	Do This
Select one shape	Click the shape with the pointer tool.
Select several shapes by clicking	Select the first shape, hold down the Shift key, then click the other shapes one at a time.
Select several shapes by dragging	With the pointer tool, drag a selection net around all the shapes you want to select.
Select all shapes on a page	From the Edit menu, choose Select All.
Select all of a particular kind of object, such as shapes, groups, guides, and so on	From the Edit menu, choose Select Special. In the Select Special box, check Shape Type, then check the kind of object you want to select.
Cancel a selection	Click away from the selected shape.
Cancel the selection of one shape when several are selected	Hold down the shift key and click the shape.

To bring a shape to the top of the stack:

1. Select the shape you want on top.

2. From the Shape menu, choose Bring To Front.

   The shape you selected is brought to the top of the stack.
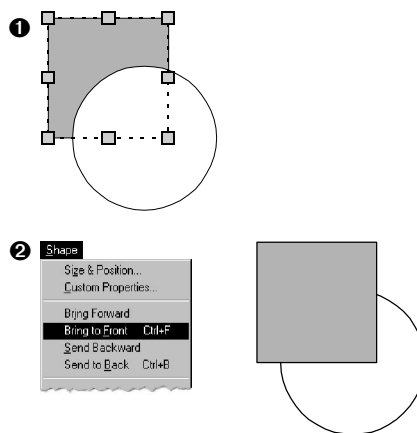
To send a shape to the bottom of the stack:

1. Select the shape you want on the bottom.

2. From the Shape menu, choose Send To Back.

   The shape you selected is sent to the bottom of the stack.

❶

❷ Shape
Size & Position...
Custom Properties...

Bring Forward
Bring to Front   Ctrl+F
Send Backward
Send to Back   Ctrl+B
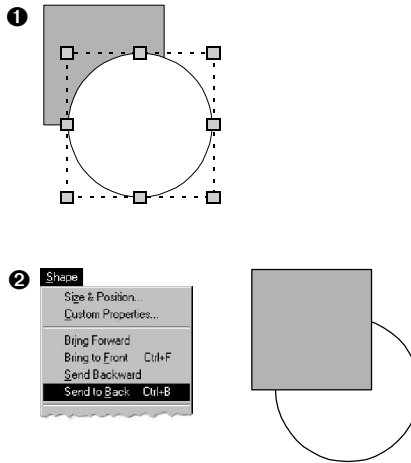
To move a shape one position in the stack:

1. Select the shape you want to move.

2. From the Shape menu, choose Bring Forward or Send Backward.

   The shape you selected has moved one position in the stack.

❶

❷ Shape
Size & Position...
Custom Properties...

Bring Forward
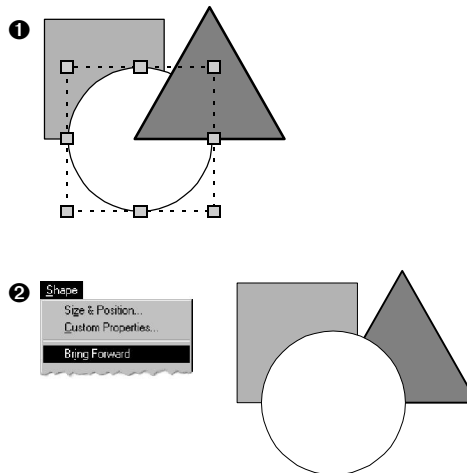
SNAPPING AND GLUING SHAPES

Snap and glue are Visio tools that allow you to accurately position and move shapes.

Snapping pulls shapes toward the objects you want them to line up with. You can control when you snap, what objects shapes snap to, and snap strength.

Glue connects shapes to other objects. Once shapes are glued, you can move them and still retain their connections. Glue is particularly useful in flowcharts, organization charts, and network diagrams. (You can control when to glue and which points objects glue to on shapes.)

You can also control the strength with which shapes snap and glue to rulers, grid lines, guides, and connection points. If you increase snap and glue strength for connection points, for example, and decrease it for a guide, shapes will jump toward a connection point even with a guide nearby.

For related information, see online Help: press F1, click Search, click Index, then type "snap" or "glue."
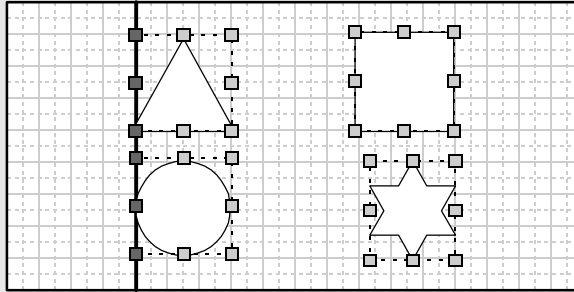
Shapes line up more easily when they snap to grid lines, ruler subdivisions, or guides.
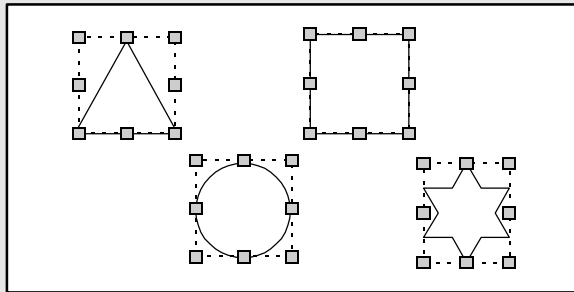
Turn off snap options you don't want so they don't interfere with your work. For example, if you want shapes to snap to guides, turn off the grid line and ruler subdivision options.
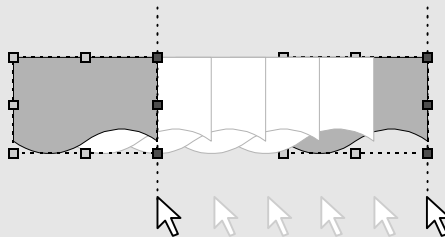
When you glue shapes to a guide, if you move the guide, you also move the shapes.
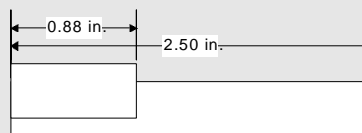
By gluing a dimension line to a shape's selection handles, you can measure the shape while you resize it.

To set snap and glue options:

1. From the Tools menu, choose Snap and Glue.

2. In the Snap and Glue box, check the options you want and uncheck the options you don't want, then click OK.

Snap and Glue options

A Check Snap or Glue to make them active. Uncheck to make them inactive.

B Check the objects you want shapes to snap to. Uncheck the objects you don't want shapes to snap to.

C Drag the box in the appropriate bar to increase or decrease snap and glue strength.

D Check the objects you want shapes to glue to. Uncheck the objects you don't want shapes to glue to.
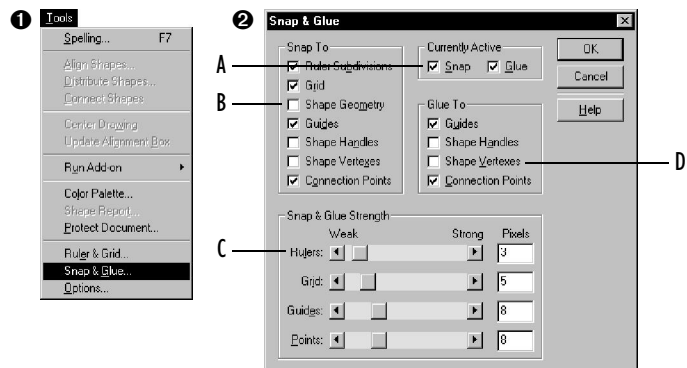
CONNECTING SHAPES

In some types of diagrams, such as flowcharts, organization charts, and network diagrams, the connections between shapes are as important as the shapes themselves.

Usually, when you connect shapes, the connection is point-to-point, that is, from a specific point on one shape to a specific point on another. If you move the shapes, the two specific points remain connected. Point-to-point connections are useful in hierarchical diagrams such as organization charts, where information, such as reporting structure and levels of responsibility, is indicated by how shapes connect.

You can also make shape-to-shape, or dynamic, connections between shapes. In shape-to-shape connections, two shapes rather than any specific points on them are connected. When you move the shapes the connector also moves to connect the two points closest to one another. Dynamic connections are useful in diagrams such as flowcharts, where connections indicate a process and it doesn't matter which specific points are connected.

For related information:

See online Help, press F1, click Search, click Index, then type "connect."
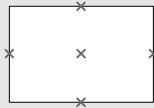
In Visio, you use one-dimensional connectors to connect two-dimensional shapes. Blue x's on two-dimensional shapes are connection points where you can glue connector endpoints.
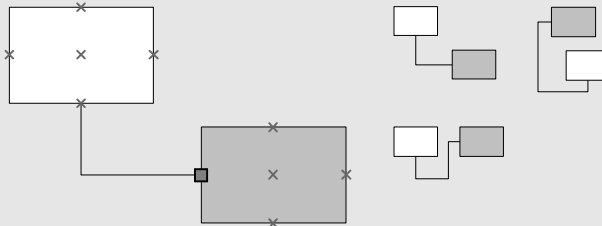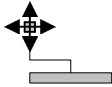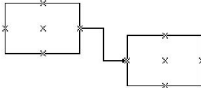
When you make a point-to-point connection, a box appears around the connection point and connectors have identifiable beginning and ending points. If you move the shapes, the two specific points remain connected.
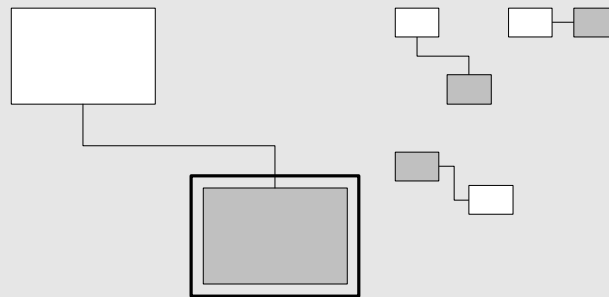
When you make a shape-to-shape connection, a box appears around the shape, and connectors have unmarked endpoints. If you move the shapes, the connector also moves to connect the two closest points.

Suggested Methods for Connecting Shapes

To		Use This Tool	Do This
Create flowcharts		Connector Tool	Choose the connector tool. Drag and drop shapes.
Connect shapes already on the page		Connect Shapes Command	Select the shapes you want to connect. From the Tools menu, choose Connect Shapes.
Create organization charts or network diagrams		Control handle on a shape	Drag and drop a shape with a connector control handle. Drag the control handle on one shape to a connection point on another shape.
Connect specific points on shapes		Connector shapes on stencils	Drag and drop two two-dimensional shapes. Drag and drop a connector. Drag the connectors' endpoints to connection points on the two-dimensional shapes.
Connect specific points on shapes		Stamp tool and connector shapes	Drag and drop two two-dimensional shapes. From the connection tool menu, choose the stamp tool. On the stencil, click a connector master shape. On the drawing page, position the pointer over a connection point on one 2-D shape and drag to a connection point on the second shape.

To add a connection point to a shape:

1. Select the shape you want to add a connection point to.

2. From the connection tool menu on the toolbar, choose the connection point tool.

3. Hold down the CTRL key and click on, inside, or outside a shape's boundaries.

Tip: To delete a connection point, choose the connection point tool, click the point you want to delete, then press the Delete key.

For related information, see online Help: press F1, click Search, click Index, then type "displaying: connection."

❶

❷ —— Connection point tool

❸
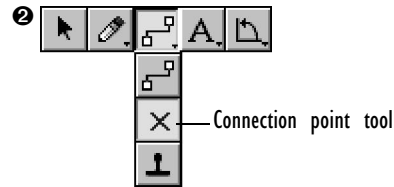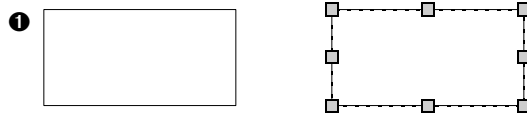
To convert a point-to-point connection to a shape-to-shape connection:

1. Hold down the CTRL key.

2. Drag a connector endpoint away from the two-dimensional shapes' connection points, then, drag it back.

3. Repeat with the other connector endpoint.

Tip: To convert a shape-to-shape connection to a point-to-point connection, repeat the same procedure but don't hold down the CTRL key.
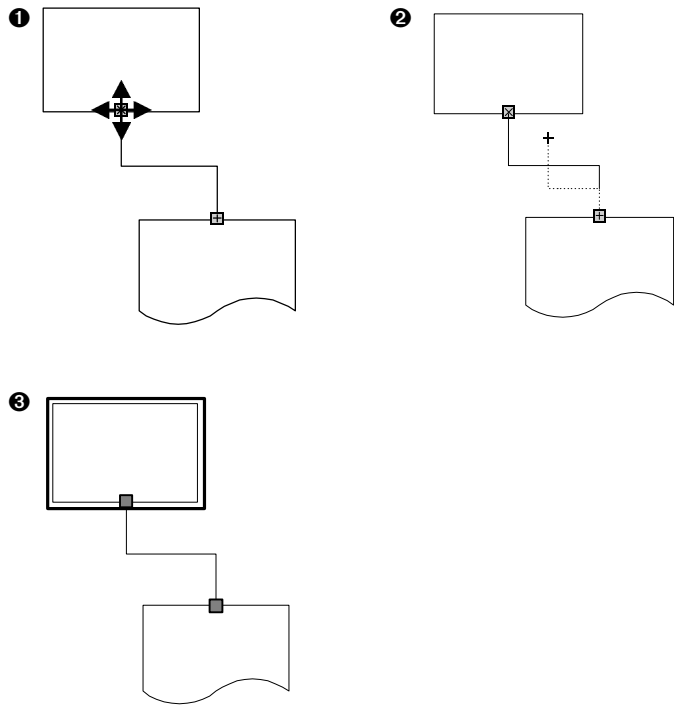
PREVIEWING DIAGRAMS

Before you open a Visio diagram you can preview it to be sure you're opening the diagram you want.
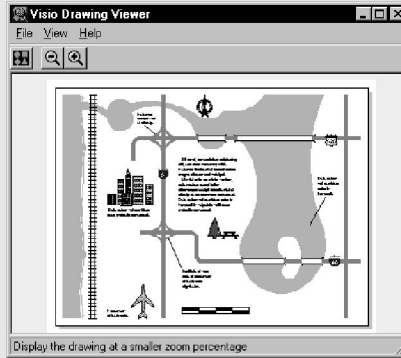
When you preview a diagram, you see a thumbnail of the first page. If it's the diagram you want, you can open it from the preview page.

To preview a diagram before you open it:

1. From the Windows 95 Start menu, choose Program, then choose Windows Explorer.

2. Right-click a Visio file, then choose Quick View from the shortcut menu.

3. To open the Visio diagram from the preview, click the icon in the upper-left corner of the window.

Tip: To open subsequent previews in the same Quick View window, choose Replace Window from the Quick View menu.
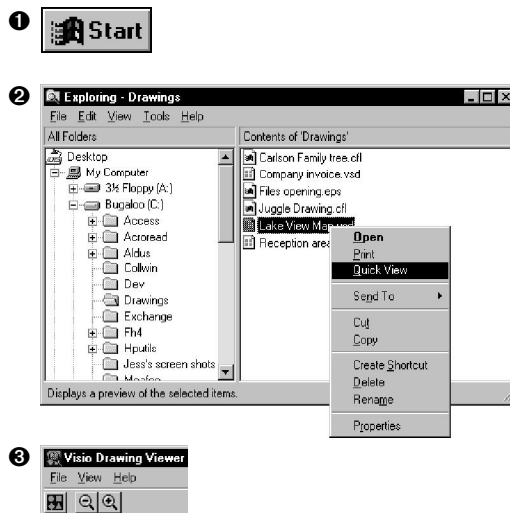
CHANGING MAGNIFICATION

When you're working on a Visio diagram, you can change the magnification. This allows you to see the whole diagram when you're dragging shapes onto the drawing page, or to focus on one particular section when you're fine-tuning a shape's position or appearance.

For related information, see online Help: press F1, click Search, click Index, then type "zoom."
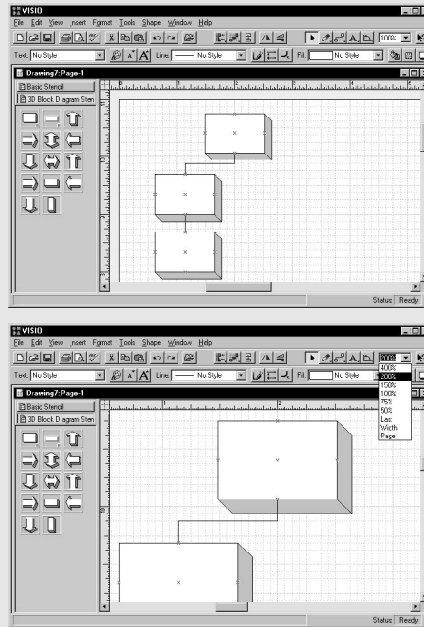
Changing the magnification of an open diagram

To	Do This
Zoom in	Press Ctrl + Shift + left mouse click
Zoom out	Press Ctrl + Shift + right mouse click
Zoom in on a selected area	Hold down Ctrl + Shift + left mouse button and drag a rectangle around the area you want to zoom in on
Automatically scroll	Hold down Ctrl + Shift + right mouse button and drag the page

Tip: You can also zoom in or out by choosing a magnification from the Set Zoom list on the toolbar.

LINKING SHAPES TO PAGES AND FILES

In Visio you can link shapes to other Visio pages or to documents created in other programs. You can also link shapes to programs. For example, you can attach a page to a computer shape in a network diagram specifying the computer's owner, purpose, and location. Or, you can attach a Microsoft Word document to a flowchart process shape that explains the steps in the process and the personnel involved.

Once you've created an annotation, you can attach it to additional shapes.
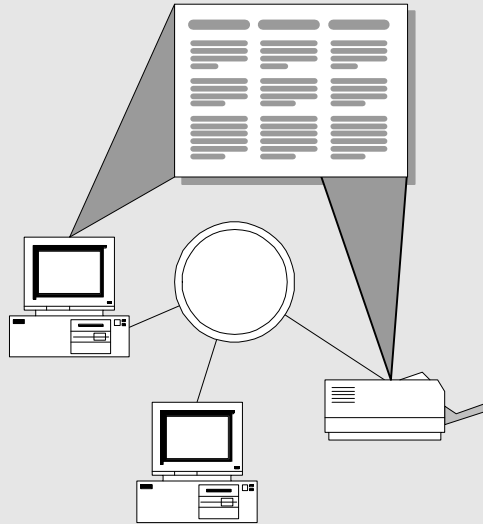
You can link more than one shape to the same page or document.
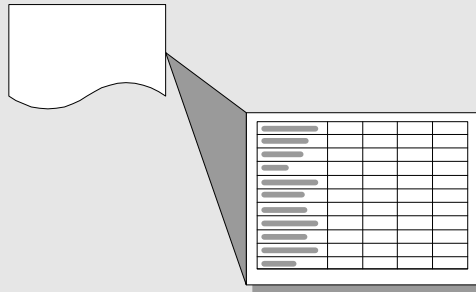
You can link information about shapes to an Excel file.
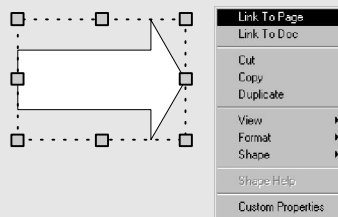
Shapes on the Flowchart and Total Quality Management stencils are programmed to make linking easier. Right-click a shape and choose a link option from the shortcut menu.

To link a shape to a Visio page:

1. Select the shape you want to link.

2. From the Tools menu, choose Run Add-On, then choose Link To Page.

3. In the Link box, type a name for the page, click Add Drop Shadow if you want a shadow to indicate a linked shape, then click OK.

❶

❷ Tools
- Spelling... F7
- Align Shapes...
- Distribute Shapes...
- Connect Shapes
- Center Drawing
- Update Alignment Box
- Run Add-on ▶
  - FLOWCONV.EXE
  - TIMELINE.EXE
  - ORGWIZRD.EXE
  - GRAPHMKR.EXE
  - SSPRINT.EXE
  - SSW.EXE
  - REPORTER.EXE
  - STNDOC.EXE
  - LAYOUT.EXE
  - REGWIZRD.EXE
  - Link To Page
  - SUBMAKER.EXE
  - Link To Document
  - OrgChart Layout VSL (ORGVSL32.VSL)
  - OrgChart Layout VSL (ORGWIZ32.VSL)
  - Add-ons...
- Color Palette...
- Shape Report...
- Protect Document...
- Ruler & Grid...
- Snap & Glue...
- Options...

❸ **Link To Page**
Link to page:
Process
☑ Add Drop Shadow to Shape
☐ Add Title Bar to New Page
OK   Cancel   Help
Note: Use the right mouse button to navigate between the selected shape and linked page.

To link a shape to a document or program:

1. Select the shape you want to annotate.

2. From the Tools menu, choose Run Add-On, then choose Link To Doc.

3. In the Link box, locate the document or program you want to link the shape to, then click OK.

❶

❷ Tools
- Spelling... F7
- Align Shapes...
- Distribute Shapes...
- Connect Shapes
- Center Drawing
- Update Alignment Box
- Run Add-on ▶
  - FLOWCONV.EXE
  - TIMELINE.EXE
  - ORGWIZRD.EXE
  - GRAPHMKR.EXE
  - SSPRINT.EXE
  - SSW.EXE
  - REPORTER.EXE
  - STNDOC.EXE
  - LAYOUT.EXE
  - REGWIZRD.EXE
  - Link To Page
  - SUBMAKER.EXE
  - Link To Document
  - OrgChart Layout VSL (ORGVSL32.VSL)
  - OrgChart Layout VSL (ORGWIZ32.VSL)
  - Add-ons...
- Color Palette...
- Shape Report...
- Protect Document...
- Ruler & Grid...
- Snap & Glue...
- Options...

❸ **Link To Document**
Look in: Examples
- Lorem.xls
- Mscreate.dir
- PROJMGT1.xls
File name: PROJMGT1.xls   Open
Files of type: All Files(*.*)   Cancel

More ➤

To link more than one shape to a page:

1. Select the new shape you want to link.

2. From the Tools menu, choose Run Add-On, then choose Link To Page.

3. In the Link box, under Page Name, choose the name of the page you want to link the new shape to, then click OK.
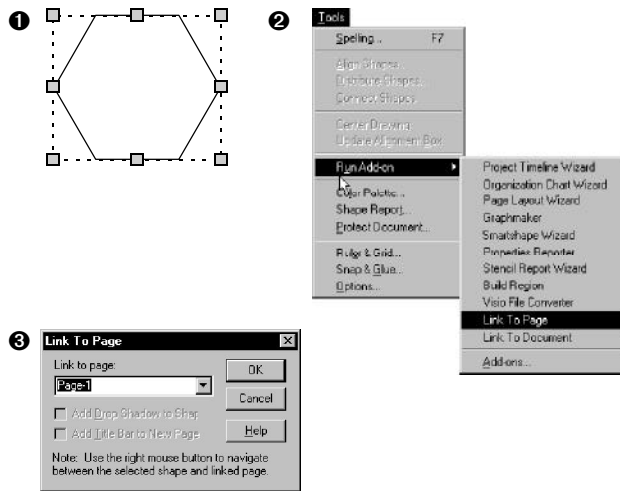
To link more than one shape to a document or program:

1. Select the new shape you want to link.

2. From the Tools menu, choose Run Add-On, then choose Link To Doc.

3. In the Link box, choose the name of the document or program you want to link the new shape to, then click OK.
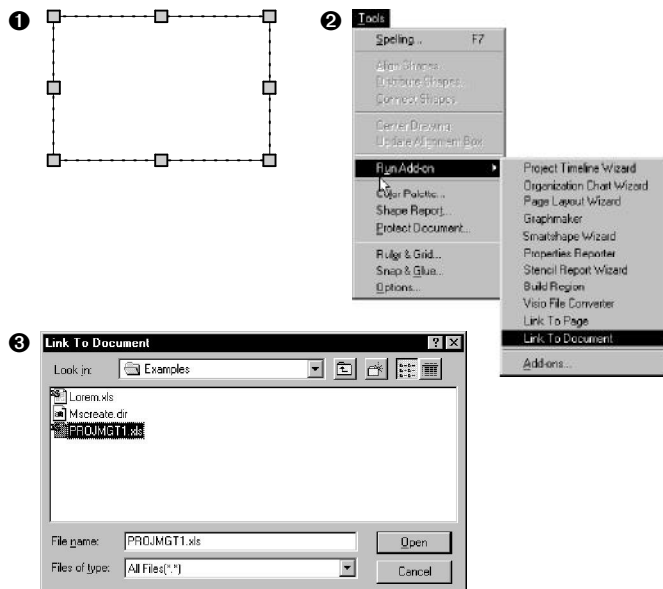
To move between a shape and its link:

1. Right-click the shape, then choose Go To from the shortcut menu.

2. If the link is to a page, right-click the page, then choose Go To Shape to return to the original page.

   If the link is to a document, press ALT + TAB to return to the Visio page.

❶

❷
```
Go To page 1102
Cut
Copy
Duplicate

View          ▶
Format        ▶
Shape         ▶

Shape Help
```
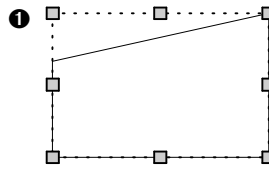
STARTING A VISIO DIAGRAM

The best way to start a new diagram is to open a template for the kind of diagram you're creating. For example, if you need to draw a directional map, begin by opening the Map template.

When you open a template, you actually open a copy rather than the original template file. That way, you won't inadvertently modify the original.

To use shapes not available on the stencils that open with a template, you can open additional stencils. Stencils are stored in the Stencils subfolder of the Visio folder.

Tip: When you work in Visio, you can choose how the toolbar will look. From the Visio View menu, choose Toolbars. In the Toolbars box, choose style and display options for the toolbar. The display resolution of your monitor and the size of the Visio main window affect how many toolbar buttons display.

For related information, see online Help: press F1, click Search, click Index, then type "starting."

Opening a template gives you a head start on setting up your file.
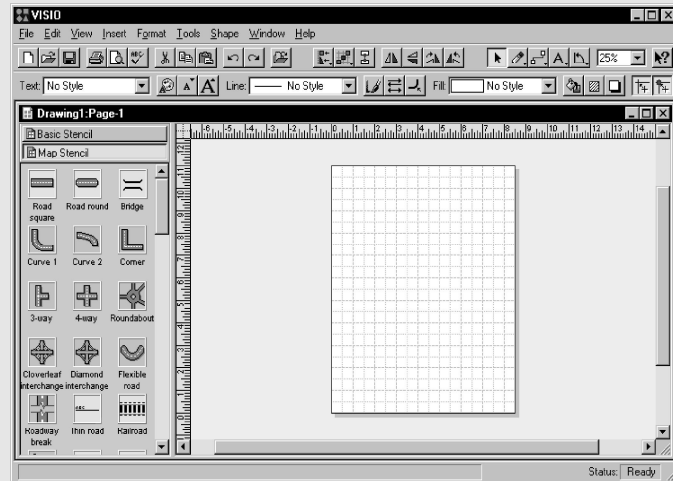
A template includes stencils that contain the shapes most frequently used for that specific type of diagram.

The drawing page that opens with a template is set up with the size, orientation, scale, grid, and measurement system best suited to the type of diagram you chose.

Lorem Ipsum
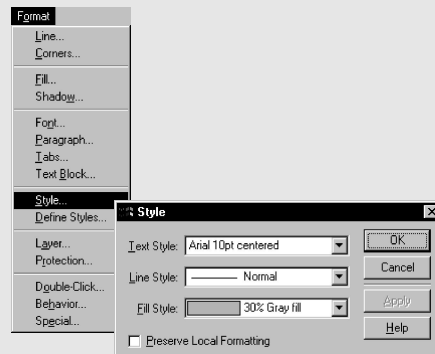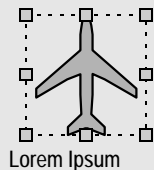
A template includes styles for text, lines, and fills. The shapes you drag and drop have a consistent look.

To start Visio and open a template:

1. If you're using Windows 95, click Start, choose Programs, then choose Visio.

If you're using Windows 3.1, open the Visio Program Group in Program Manager. Double-click the icon of the template you want to open.

Tip: To open a drawing page with no stencils, click Visio instead of a template. In the New box, under Based on, choose No Template.
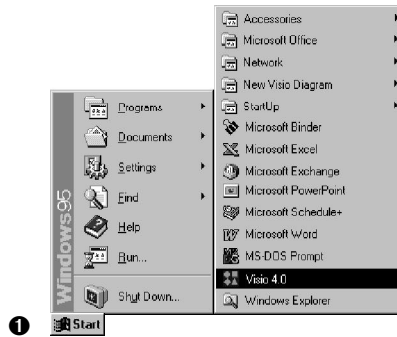
SAVING VISIO FILES

When you save a Visio diagram, you can:

- Save it as a drawing file or template;

- Save it in Visio 2.0 or 3.0 file format, if you want to open the diagram using earlier versions of Visio (the diagram will lose information, such as layers or shapes created with the freeform tool, that are specific to Visio 4.0);

- Save it as read-only so no one else can change it.

Save a diagram as a template when you want to use its print, snap and glue, drawing page and other settings, and the arrangement of its stencil and drawing page windows as a model for other diagrams.

The first time you save a file, Visio prompts you for document properties, such as title, creator, keywords, and description. Filling in the properties fields makes it easier to identify the file later.

By inserting a special text field in a diagram, you can display the diagram's document properties. When you update the properties, the text field updates automatically.

For related information, see:

See online Help, press F1, click Search, click Index, then type "saving."
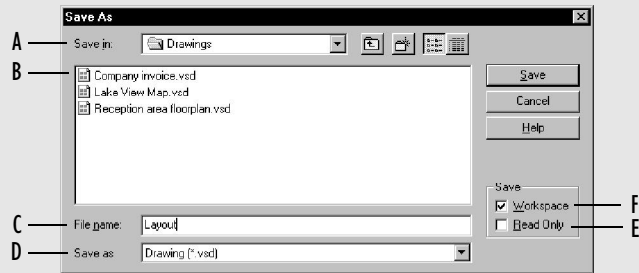
Save As Options

A Choose to display the drive where you want to save your diagram.
B Choose the folder where you want to save your diagram.
C Type a name for your diagram.
D Choose the type of file you want your diagram saved as.
E Check to prevent your diagram from being modified.
F Check to save the arrangement of stencil and drawing windows as well as the diagram content.
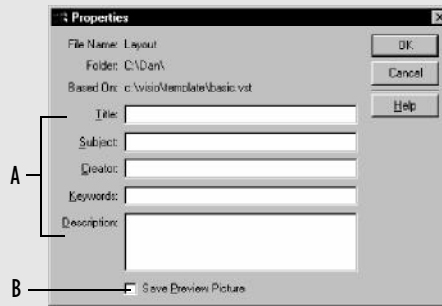
Properties Options

A Type to add properties to a document.
B Check to have a preview of the diagram appear when you choose the file in the Open box.

To save a new Visio file:

1. From the File menu, choose Save or Save As.

2. In the Save As box, under Save As, choose the file type you want to save your file as.

3. Under Save In, locate the drive and folder where you want your file saved.

4. Type a name for the file, then click Save.

5. In the Properties box, enter the summary information you want to save with the file, check Save Preview Picture if you want to be able to preview the diagram before you open it, then click OK.

❶ File
New...   Ctrl+N
Open...   Ctrl+O
Close

Save   Ctrl+S
Save As...

❸ Save As

Save in: Drawings

Company invoice.vsd
Lake View Map.vsd
Reception area floorplan.vsd

Save
Cancel
Help

❹ File name: Drawing2.wmf
❷ Save as: Windows Metafile (*.wmf)

Properties
File Name: Drawing1
Folder: C:\Program Files\VISIO\DRAWINGS\
Based On: c:\program files\visio\template\block3dp.vst

OK
Cancel
Help

Title:
Subject:
Creator:
Keywords:
Description:

❺

☑ Save Preview Picture

To revise document properties:

1. From the File menu, choose Properties.

2. In the Properties box, revise the relevant information, then click OK.

Tip: To stop Visio from prompting you for properties when you save, choose Options from the Tool menu. In the Options box, under General, uncheck Prompt For Document Properties on Save.

❶ File
New...   Ctrl+N
Open...   Ctrl+O
Close

Save   Ctrl+S
Save As...
Save Workspace...

Properties...
Stencils...

❷ Properties
File Name: Drawing1
Folder: C:\drawings\
Based On: c:\visio40\template\basic.vst

OK
Cancel
Help

Title:
Subject:
Creator:
Keywords:
Description:

☐ Save Preview Picture
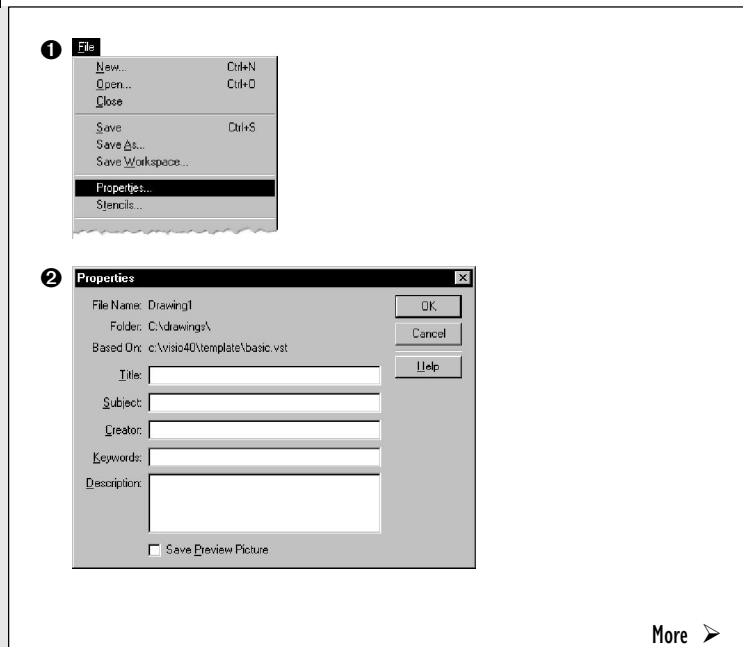
More ➤

To save a diagram as a template:

1. Open the drawing file that contains the stencils you want to save in a template.

2. Set the settings and arrange the windows the way you want them to appear in the template.

3. From the File menu, choose Save As.

4. In the Save As box, under Save As, choose Template (*.VST) from the list.

5. Type a name for the file, choose the location where you want the file saved, then click Save.

For related information, see online Help: press F1, click Search, click Index, then type "template."

❶

❷

❸

❹

❺
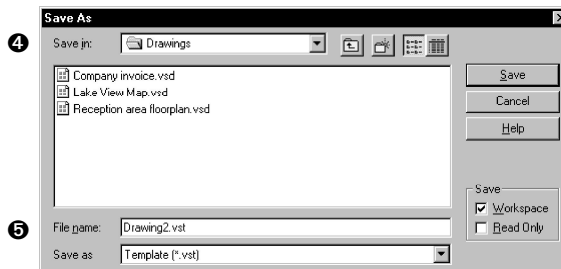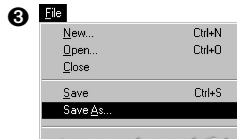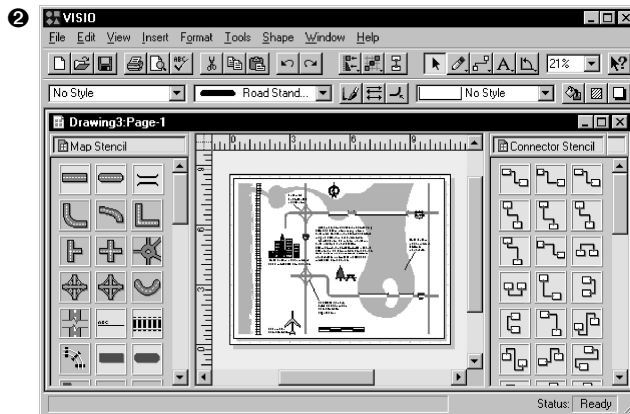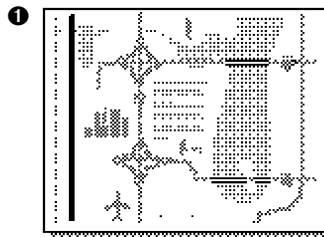
GENERATING NUMERICAL REPORTS

If you associate numerical properties, such as cost, duration, or resources with a diagram's shapes, you can use the Property Reporting Wizard to perform calculations using those properties and to generate reports. For example, you could find the cost for all equipment in a computer network.
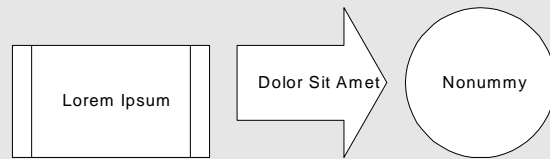
Generating reports involves two steps:

- Associate each shape with data.

- Run the Property Reporting Wizard and perform the calculations you want.

Lorem Ipsum

Dolor Sit Amet

Nonummy

Title	
Property	Total
Cost	$2,400.50
Duration	23
Resources	28

To generate reports using shape properties:

1. Create a diagram by dragging and dropping shapes onto the drawing page.

2. Associate the shapes with numerical data on which you want to perform calculations. (See Associating Properties With Shapes, pp 74).

3. From the Tools menu, choose Run Add-on, then choose Property Reporter.

4. Follow the instructions in the Property Reporting Wizard boxes.

❶

❷ **Custom Properties**
Cost: $600.00
Duration: 10
Resources: 1
Prompt
Enter the cost associated with this process.
OK
Cancel
Help

❸ Tools
Spelling... F7
Align Shapes...
Center Drawing
Update Alignment Box
Run Add-on
Color Palette...
Shape Report...
Protect Document...
Ruler & Grid...
Snap & Glue...
Options...
FLOWCHART
TIMR INF
ORGWIZRD
GRAPHKR
GSPRINT
SSW
REPORTER
STNDOC
LAYOUT
REGWIZRD
REGION
Link To Page
SUBMAKER
Link To Document
OgChart Layout VSL
Visio Tile Converter
Visio Flowchart Converter
Add-ons

❹ **Property Reporting Wizard**
Choose the property or properties to include in your report.
Cost
Duration
Resources
Add One >
Add All >>
< Remove One
<< Remove All
< Back   Next >   Cancel

PRINTING STENCILS

Using the Stencil Report Wizard, you can print copies of Visio stencils. Having a printed copy can make it easier to locate a specific shape and to compare shapes or stencils to one another.

You can decide how many shapes to print per page, whether or not to separate the shapes with grid lines, whether or not to include headers or footers in the report, and what information about the shapes the report should include.
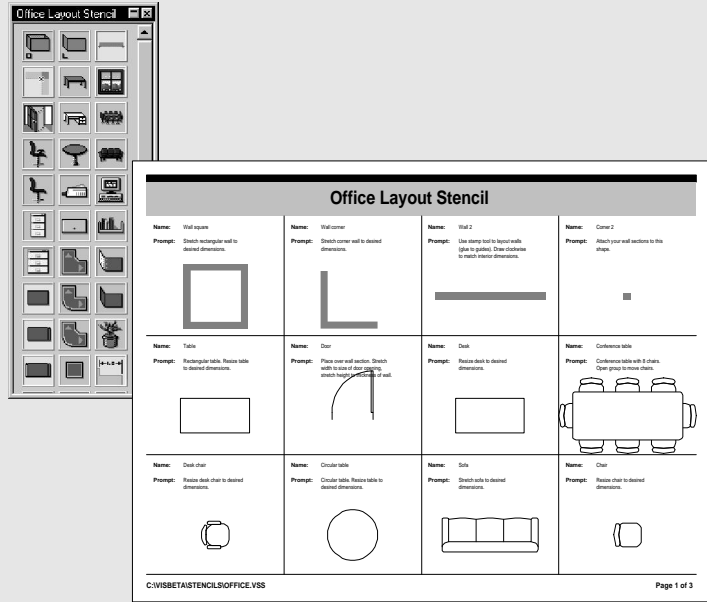
To print a stencil report:

1. Open the stencils you want to print.

2. From the Tools menu, choose Run Add-on, then choose Stencil Report Wizard (Stndoc).

3. Follow the instructions onscreen to identify the stencils and choose the print options you want.
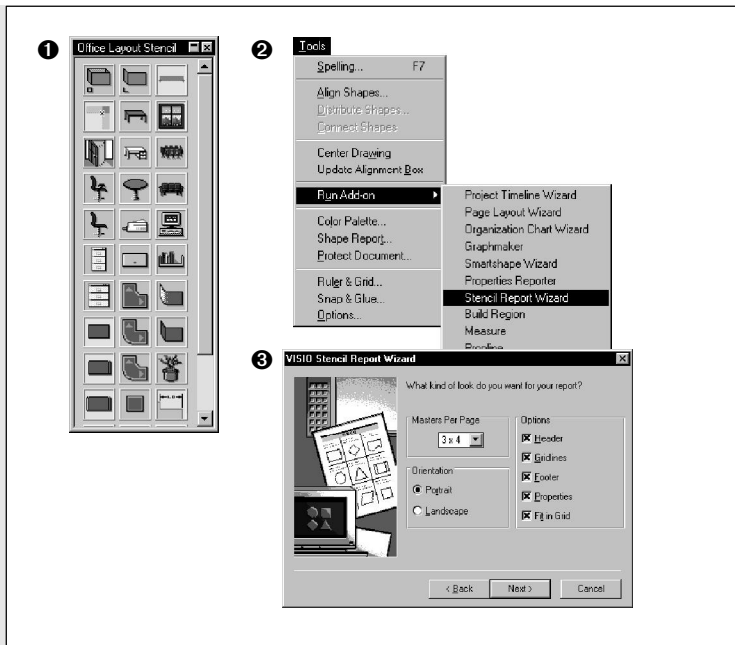
Office Layout

For an overview of the best way to create an office layout, see "The Big Picture."

To create a chart as quickly as possible, turn directly to "Creating an Office Layout."

For detailed information, see the In Depth topics in this and other chapters.

Topics in this chapter

THE BIG PICTURE

1 Measure the dimensions of the space you want to create a layout for before you draw.
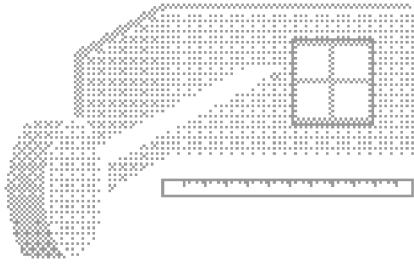
2 Open the office layout template.
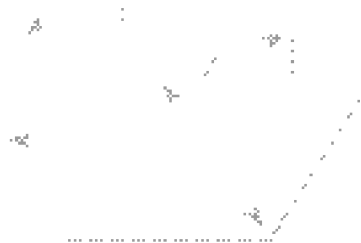
3 Choose the correct drawing scale.
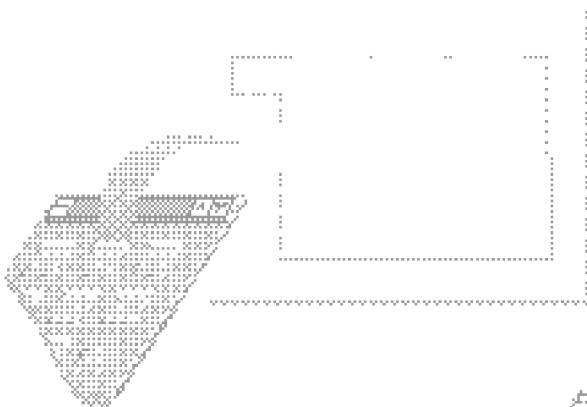
4 Set up the drawing page.

5 Assemble the walls; add doors and windows.
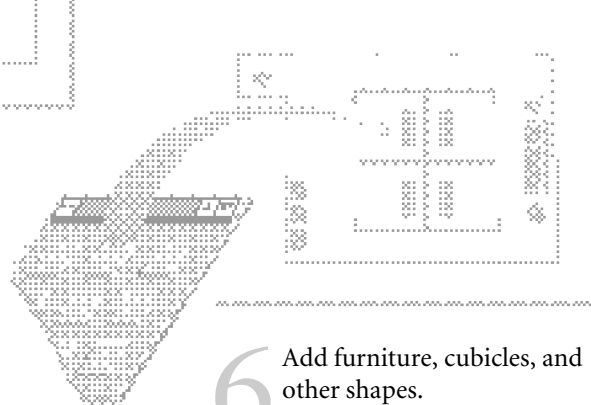
6 Add furniture, cubicles, and other shapes.
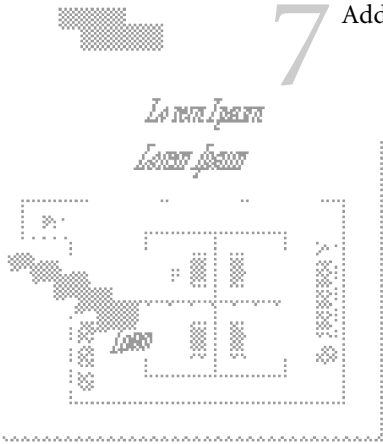
7 Add text to shapes.

Lorem Ipsum

Lorem Ipsum
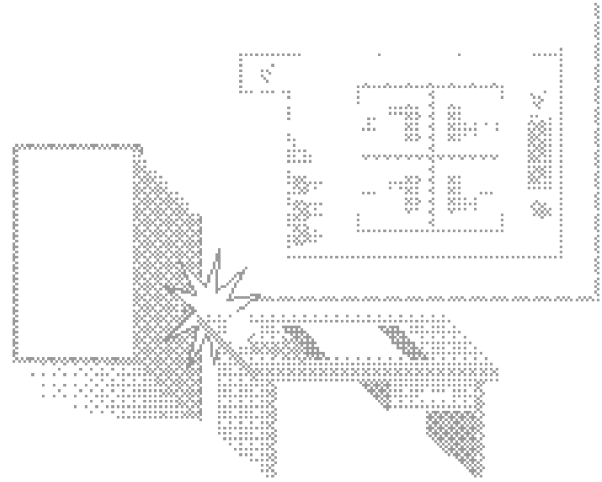
8 Title the office layout.

9 Check for adequate space.
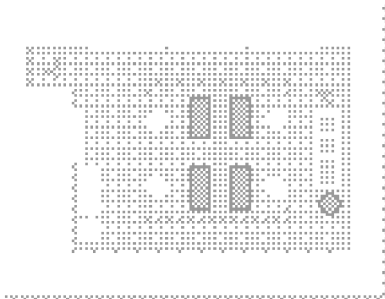
10 Refine the look of the layout.
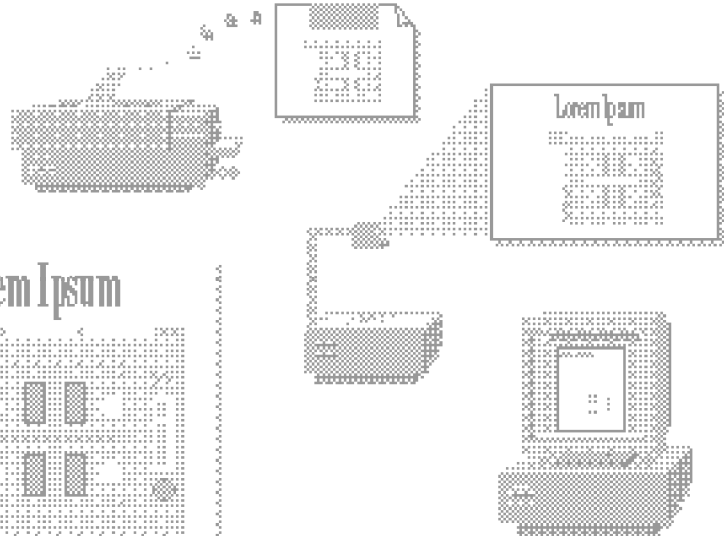
11 Save and produce.

Lorem Ipsum

Lorem Ipsum
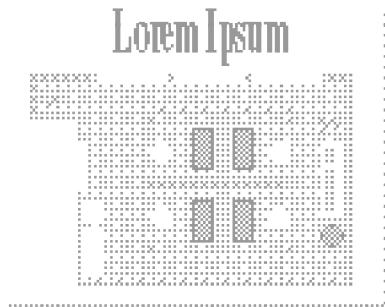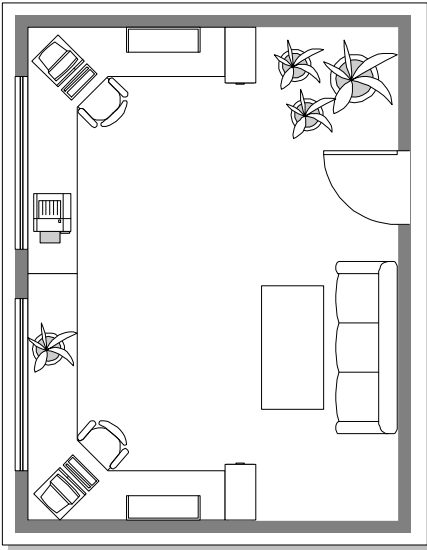
CREATING AN OFFICE LAYOUT

We've provided complete instructions for creating an office layout. To create your particular layout, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

Before you start to draw:

- Measure the dimensions of the office space you want to plan.

- Measure the size of the objects you want to include in the office you're planning.

- Measure the size of the windows and note which direction doors open.

To open the office layout template:

1. Start Visio.

2. In the New box, under Based On, choose Office Layout Template, then click OK.
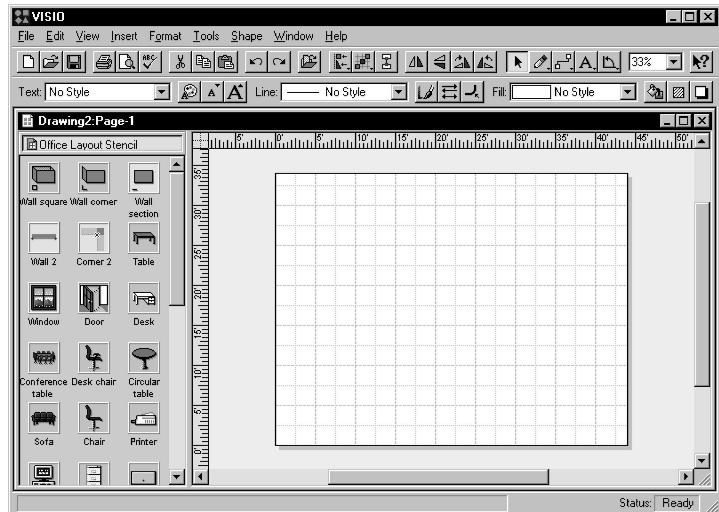
Visio opens a new file with a blank drawing page.

Or, you can open the Office Layout Wizard. The Wizard guides you through the process of creating the wall structure, setting the drawing scale, and choosing page size, orientation, and other layout features.

To change the drawing scale:

1. Display the drawing page, which, by default, has a drawing scale of 1cm = 1 m.

2. From the Edit menu, choose Drawing Page, then choose Size & Scale.

2. From the Edit menu, choose Drawing Page, then choose Size & Scale.

3. In the Drawing Size/Scale box, under Drawing Scale, click Architectural and choose a standard scale from the list, or click Custom Scale to enter a custom scale, then click OK.

For more details, see:

To set up the drawing page:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Drawing Size/Scale box, click Same As Printer or choose a standard or custom drawing page size, then click OK.
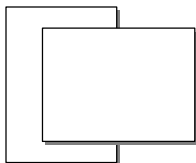
For more details, see:

To assemble the walls:

1. Drag guides from the horizontal and vertical rulers to indicate the dimensions of the room on the page.

2. Hold down the CTRL key and drag the zero point from the intersection of the two rulers to the upper-left corner of the room.
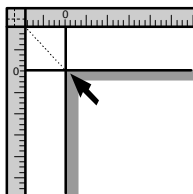
Ctrl

3. Drag and drop a Wall Corner shape and place it in a corner so the wall thickness is outside the room's perimeter. If necessary, choose an option from the Shape menu to flip or rotate the shape so it fits in each of the four corners.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

4. Drag and drop Wall Section shapes, and glue their ends to the wall corner shapes. The selection handles turn red when the shapes are glued.

5. To create an angled wall, glue one end of a wall section to a wall corner shape, then drag the other endpoint. The glued end remains anchored in place.

6. Continue dragging, dropping, and aligning wall shapes until you've defined the outline of the room.

7. Align Window and Door shapes on top of wall shapes to add windows and doors. They snap into place.

8. If necessary, choose an option from the Shape menu to flip or rotate window shapes so their endpoints snap to the guides on the inside of the walls. Flip or rotate door shapes so they open in the appropriate direction.

For more details, see:

To add cubicles, furniture, and other shapes, and check for adequate space:

1. Drag cubicle corners and panels, desks, and other furniture onto the drawing page. Use the rulers to position them.

2. Use the control handles on some shapes to check for clearance. For example, drag a control handle to spin the desk chair or open a file cabinet drawer.

For more details, see:
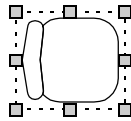
To add text to shapes:

1. Select the shape you want to add text to.

2. Type the text. Visio zooms in on the selected shape as you type.

3. Press the ESC key to return to the original magnification.

For more details, see:

To title an office layout:

1. From the toolbar, choose the text tool.

2. With the crossbar, point to where you want your office layout title to start, then click and drag a box about the size you think your title will be.

3. Type the title.

4. From the Format menu, choose Font.

5. In the Font dialog box, choose the title text's font, size, color, and style, then click OK.

6. From the toolbar, choose the pointer tool.

7. Click the title text block to select it.

8. Drag a selection handle to change the text block width or height.

9. Position the pointer over the text block. When the pointer turns white, drag the text block to where you want it to appear on the page.

For more details, see:

Refine the look of an office layout:

To change the way a shape looks:

1. Select the shape you want to format.

2. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

3. From the Format menu, choose Line. In the Line box, choose the options you want, then click OK.
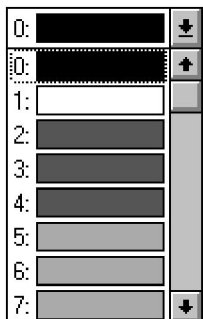
To change the way text looks:

1. Select the shape with text or the text block you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

For more details, see:

To change a shape's layer assignment:

1. Select the shape you want to assign to a different layer.

2. From the Format menu, choose Layer.

3. In the Layer box, choose the layer you want to assign the shape to, then click OK.

For more details, see:

Save and produce the office layout

*To name and save a completed office layout:*

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the office layout, choose the other options you want, then click Save.

To print an office layout:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the office layout in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link the office layout file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

DRAWING TO SCALE

When creating an office layout, you need to recreate the exact spatial relationships of a large space in the small space of the drawing page. You can maintain the correct proportions by drawing to scale.

Some Visio templates open with particular drawing scales in place. For example, in the Office Layout template, 1 cm on the drawing page represents 1 m.

The smaller the drawing scale, the larger the area you can represent. For example, a small scale (such as 1 cm = 1 m) lets you draw an entire floor on one page. A larger scale (such as 10 cm = 1 m) allows you to focus in on one cubicle.

When you drop Visio shapes on a scaled drawing page, they adjust automatically to the scale you've set. If you want to change the scale after you've already dropped shapes, cut the shapes, change the scale, and then paste the shapes back onto the page.

Tip: Shapes adjust automatically when you change scales as long as the new scale ratio is no more than eight times larger or smaller than the original ratio.
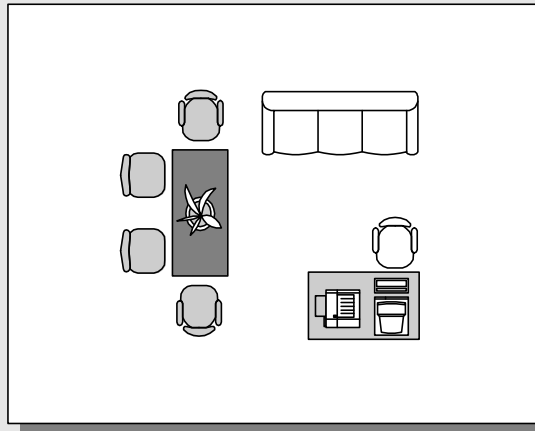
Scale: 1 cm = 1 m
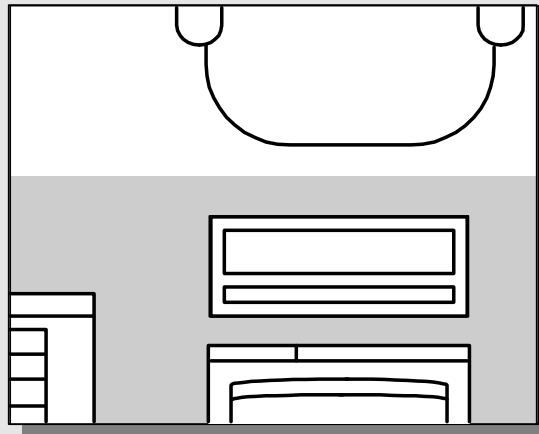
Scale: 8 cm = 1 m

To set a drawing scale:

1. Display the drawing page.

2. From the Edit menu, choose Drawing Page, then choose Size/Scale.

3. In the Drawing Size/Scale box, click Architectural, then select a scale from the list.

4. Click OK until you return to the Visio drawing page.

Drawing Size/Scale Box

A Displays the printed drawing size.

B Displays the drawing page size in scaled units.

C Click to choose a standard Architectural scale.

D Click to enter a custom scale.

❶

❷ Edit
Undo Clear	Ctrl+Z
Can't Repeat	F4
Cut	Ctrl+X
Copy Drawing	Ctrl+C
Paste	Ctrl+V
Paste Special...	
Clear	Delete
Select All	Ctrl+A
Duplicate	Ctrl+D
Select Special...	
Drawing Page ▶	Properties...
	Size & Scale...
Find...	
Replace...	Delete...
Go To ▶	Reorder...
Links...	
Object	

❸ **Drawing Size/Scale**

Drawing Size
Orientation:
○ Tall (Portrait)   ● Wide (Landscape)
Page Size: A4: 297mm x 210mm

A — ○ Standard
    ● Metric (ISO)
    ○ ANSI Engineering
    ○ ANSI Architectural
    ○ Same as Printer
    ○ Custom Page Size

B — Drawing Size: 124ft 8,6929i x 88ft 2,2677in
    ○ Fit Page to Drawing Contents
    ○ Custom Scaled Drawing Size

❹ OK   Cancel   Help

Drawing Scale
Scale: 3/32" = 1' 0"
○ No Scale (1:1)
○ Metric
● Architectural — C
○ Civil Engineering
○ Mechanical Engineering
○ Custom Scale — D

PLACING INFO ON BACKGROUND PAGES

When you open a Visio file, the drawing page on the screen is a foreground page. You can create background pages to use in connection with the foreground page. Each Visio file can have multiple foreground pages, and you can assign a background page to each foreground page. Since pages are transparent, everything on the background is also visible on the foreground.

Use foreground and background pages when you want to repeat the same shapes in the same places in several diagrams, or when you want to include two different page settings (for example, scale or shadow offset) in the same diagram.

For related information, see online Help: press F1, click Search, click Index, then type "background."
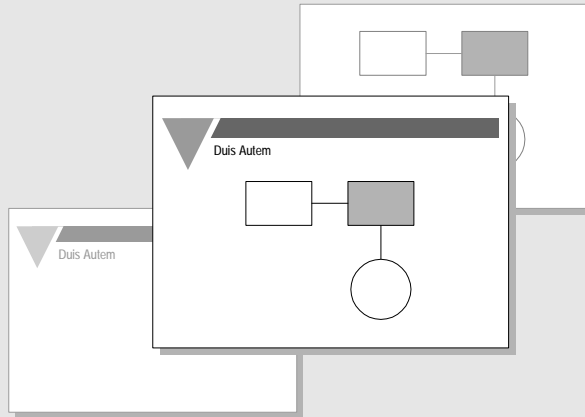
When you open a Visio file, the drawing page on the screen is a foreground page. If you want to use background pages, you need to create them.

To create a background page:

1. From the Insert menu, choose Page.

2. In the Page box, under Type, click Background.

3. Under Name, type a name if you want to use a different name from the one Visio assigns, then click OK.

4. To see both the foreground and background at the same time, in the Page box check Open Page in New Window. Then, from the Window menu, choose Tile.

Tip: To delete a background page, choose Drawing Page from the Edit menu, then choose Delete. In the Delete box, select the background you want to delete, then click OK.
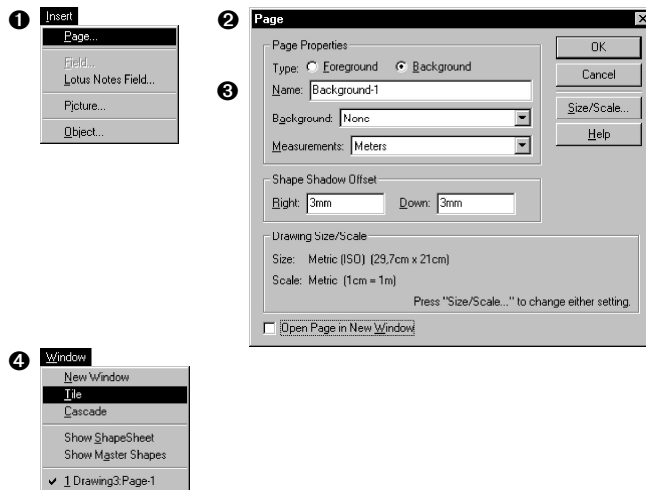
To assign a background page:

1. Display the foreground page (or background page) to which you want to assign a background page.

2. From the Edit menu, choose Drawing Page, then choose Properties.

3. In the Page Properties box, from the background list, choose the name of the background you want to assign, then click OK.

Tip: To remove a background page from a foreground, display the foreground page. Follow the procedure to assign a background, but from the background list, choose None.

❶

❷ Edit

Undo Fill Properties   Ctrl+Z
Can't Repeat   F4

Cut   Ctrl+X
Copy Drawing   Ctrl+C
Paste   Ctrl+V
Paste Special...

Clear   Delete
Select All   Ctrl+A

Duplicate   Ctrl+D
Select Special...
Drawing Page   ▶   Properties...
                          Size & Scale...
Find...
Replace...   Delete...
Go To   ▶   Reorder...
Links...
Object

❸ Page   ✕

┌─ Page Properties ──────────────────────┐
│ Type: ⦿ Foreground   ○ Background   │   OK
│ Name: Page-2   │
│ Background: Background 1   ▼   │   Cancel
│ Measurements: Meters   ▼   │
│   │   Size/Scale...
│ ┌─ Shape Shadow Offset ──────────────┐ │
│ │ Right: 3mm   Down: 3mm   │ │   Help
│ └────────────────────────────────────┘ │
│ ┌─ Drawing Size/Scale ───────────────┐ │
│ │ Size: Metric (ISO) (29,7cm x 21cm) │
│ │ Scale: Metric (1cm = 1m)   │ │
│ │   Press "Size/Scale..." to change either setting. │
│ └────────────────────────────────────┘ │
│ ☐ Open Page in New Window   │
└───┘

To display foreground or background pages:

1. While the foreground is displayed, choose Go To from the Edit menu, then choose Background.

2. While the background is displayed, choose Go To from the Edit menu, then choose Foreground.

Tip: To display a foreground and background in different windows, display the foreground. From the Edit menu, choose Go To, then choose Page. In the Page box, select the background, check Open Page In New Window, then click OK.

❶

Edit

Undo New Page   Ctrl+Z
Repeat New Page F4

Cut   Ctrl+X
Copy Drawing   Ctrl+C
Paste   Ctrl+V
Paste Special...

Clear   Delete
Select All   Ctrl+A

Duplicate   Ctrl+D
Select Special...
Drawing Page   ▶

Find...
Replace...
Go To   ▶   Foreground
                           Background
Links...
Object   ✓ 1 Page-3
                           2 Page-2
                           3 Background-1
                           4 Background-2

                           Page...

❷

Duis Autem

Edit

Undo New Page   Ctrl+Z
Repeat New Page F4

Cut   Ctrl+X
Copy Drawing   Ctrl+C
Paste   Ctrl+V
Paste Special...

Clear   Delete
Select All   Ctrl+A

Duplicate   Ctrl+D
Select Special...
Drawing Page   ▶

Find...
Replace...
Go To   ▶   Foreground
                           Background
Links...
Object   ✓ 1 Page-3
                           2 Page-2
                           3 Background-1
                           4 Background-2

                           Page...

PLACING INFORMATION ON LAYERS

By assigning shapes to different layers, you can selectively view, edit, print, lock, snap, and glue them. For example, if you're drawing an office plan, you can assign walls, doors, and windows to one layer, electrical outlets to another layer, and furniture to a third layer. That way, when you plan the electrical system, you don't have to worry about accidentally rearranging the walls. After locking the wall and electrical outlet layers, you could distribute the office plan to coworkers, who could arrange the furniture in their offices without disturbing the foundation. Shapes on the Office Layout stencil are already assigned to pre-existing layers. If you want to use layers with shapes from other stencils, you can create layers and assign shapes to them yourself.

For related information, see online Help: press F1, click Search, click Index, then type "layers."

Furniture layer

Electrical outlets layer

Walls, doors, and windows layer
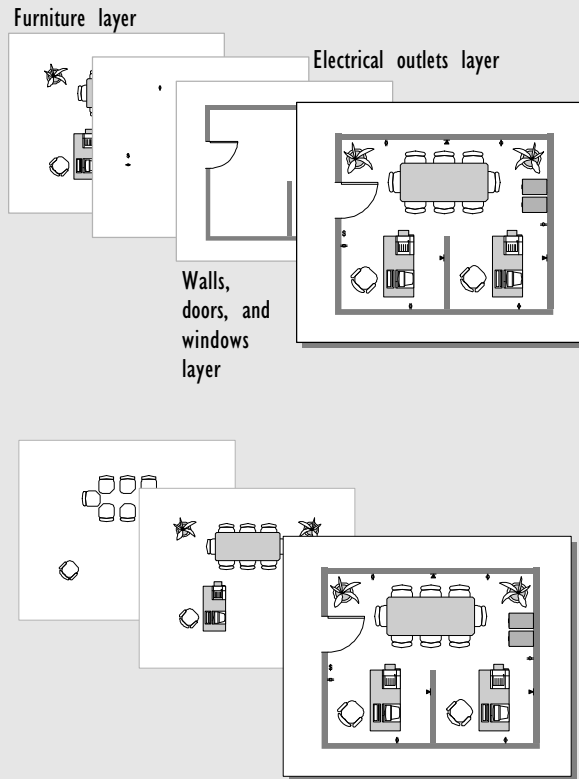
A shape can belong to more than one layer.
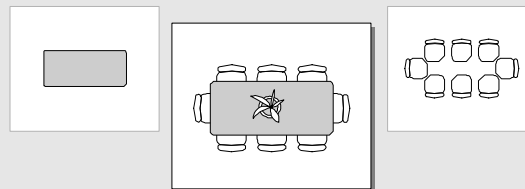
Grouped shapes all belong to the same layer but each individual shape can also belong to a different layer.

Layer anatomy

Layer Properties Box

A Check to remove layers with no shapes on them.

B Click to remove a selected layer. All the shapes on the layer will be deleted.

C Click to add a new layer.

D Click to add color to a layer, then choose the color in the list at the bottom of the box.

E Check to turn glue on for a layer.

F Check to turn snap on for a layer.

G Check to prevent shapes on a layer from being altered.

H Check to make all new shapes that aren't already assigned to layers automatically belong to this layer.

I Check to print shapes on a layer.

J Check to see shapes on a layer.

K Click to display the number of shapes on a layer.
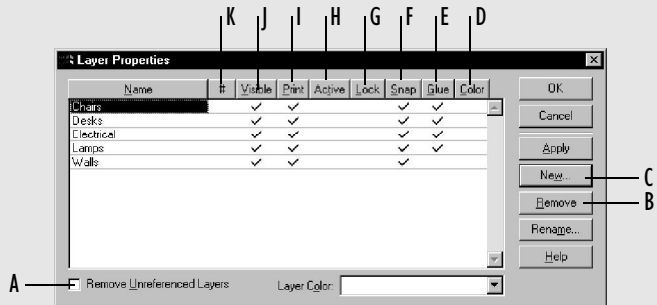
Layer Box

A Choose the layer(s) you want selected shapes to belong to.

B Check to allow grouped shapes to belong to a separate layer as well as the layer the group belongs to.

C Click to add a new layer.

D Click to assign a selected shape to all layers.
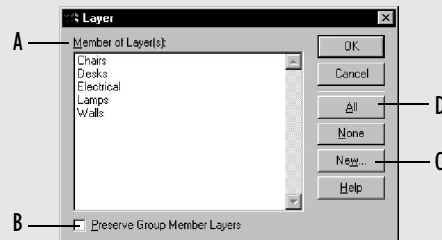
To create a layer:

1. From the View menu, choose Layer Properties.

2. In the Layer Properties box, click New.

3. In the New box, type a name for the layer, then click OK.

4. In the Layer Properties box, check the properties you want the layer to have, then click OK.

❶

❷

❸

❹
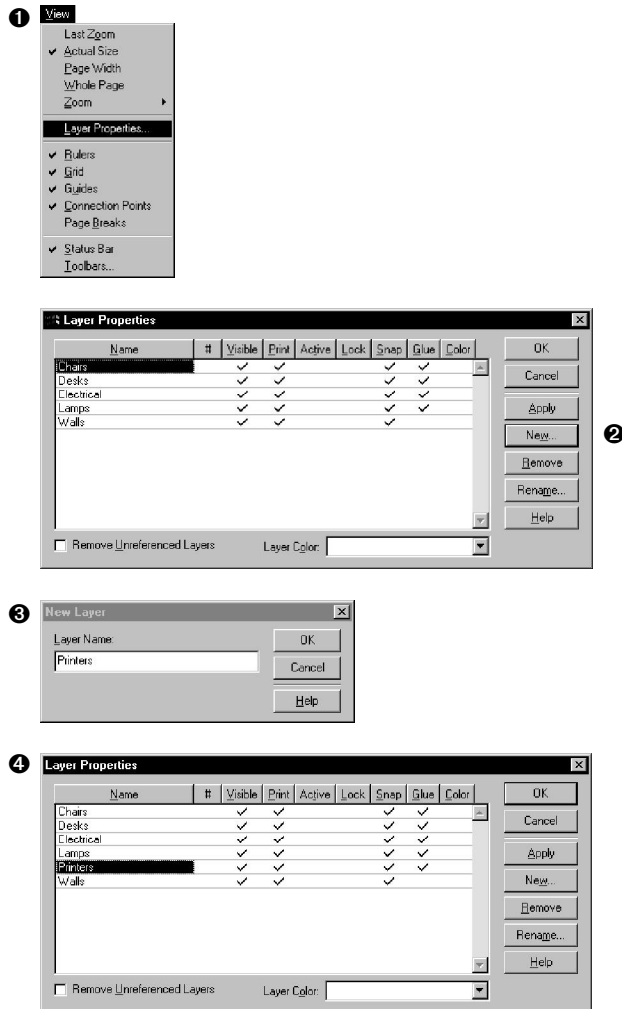
To assign a shape to a layer:

1. Select the shape.

2. From the Format menu, choose Layer.

3. In the Layer box, choose the layer you want the shape to belong to, then click OK.

Tip: To assign a shape to more than one layer, press the CTRL key to choose multiple layers.

❶ ❷

❸
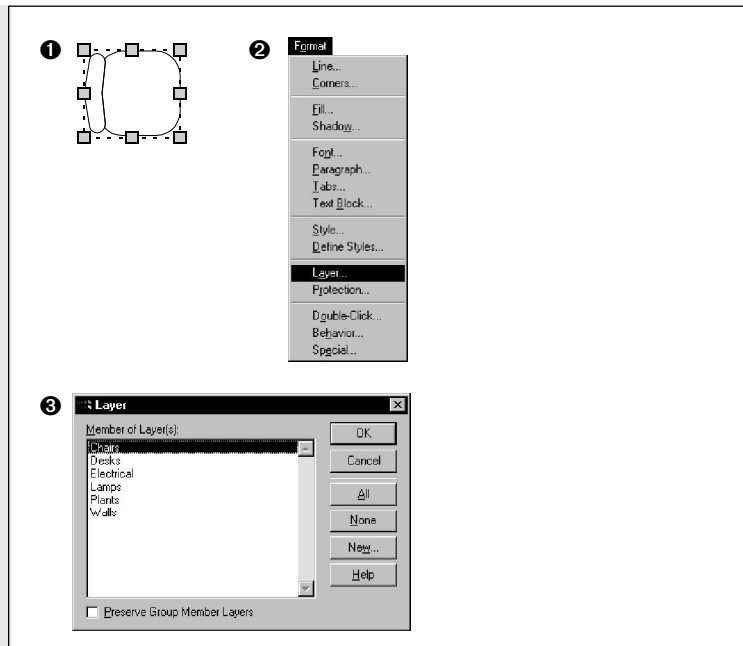
To delete a layer:

1. From the View menu, choose Layer Properties.

2. In the Layer Properties box, choose the layer you want to delete. When you delete a layer, you also delete the shapes assigned to the layer.

3. Click Remove, then click OK.

Tip: To delete a layer but not the shapes on the layer, first reassign the shapes to new layers.

❶

❷ ❸
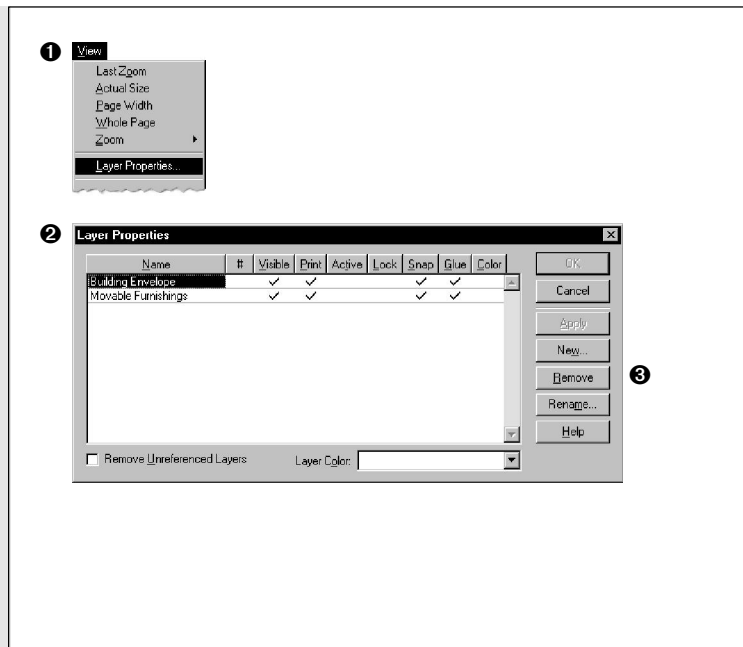
MEASURING WHILE YOU DRAW

Often, particularly when you're drawing to scale, you need know the dimensions of a shape as you size it. For example, it's easier to create a 3 meter couch when you can see its dimensions change as you drag.

In Visio, there are two ways you can measure while you draw:

1. Watch the status bar.

2. Glue a dimension line to the shape you want to size.
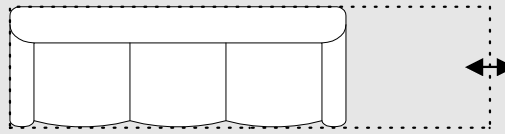
| Width = 3 m | Height = 0.9 m | Angle = 180 deg. |

When you select a shape, the status bar at the bottom of the Visio window displays its dimensions. As you size the shape, the dimensions in the status bar reflect changes in width and height.
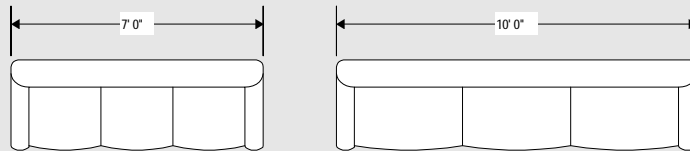
If you glue a dimension line to a shape, the shape and the line stretch together. The dimensions on the line give you the dimensions of the shape. The Office Layout stencil includes a Dimension Line shape.

To glue a dimension line to a shape:

1. From the Tools menu, choose Snap and Glue.

2. In the Snap and Glue box, under Glue to, check Shape Handles, then click OK.

3. Drag the dimension line over the shape you want to measure so that the dimension line's endpoints glue to the selection handles on either end of the shape.
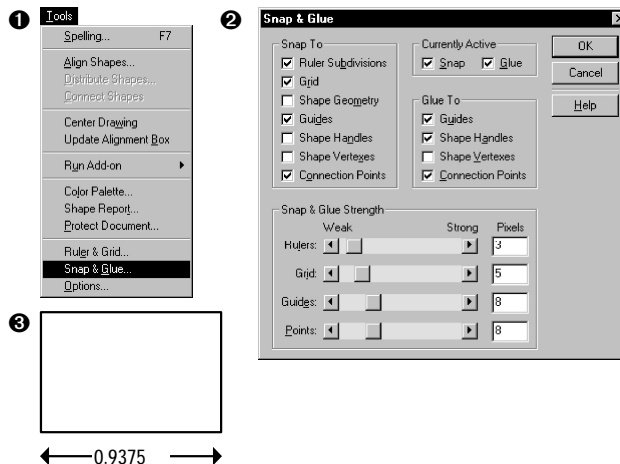
TAKE AN INVENTORY OF YOUR DIAGRAM

Take an inventory when you want to develop a bill of materials for a building project, keep track of the location of equipment and furniture, or account for every modem, printer, and workstation in a computer network.

To take an inventory, follow these steps:

- If you want the inventory to include special data, such as serial numbers or company location numbers, associate each shape with that data.

- Choose what information to include in the inventory list.

- Choose whether you want to place the inventory in the Windows clipboard, or save it as a text file you can export to a spreadsheet or database program.

- Generate the inventory.

If you have a multi-page diagram, remember that you can generate an inventory for only one page at a time. Even if certain shapes are selected when you generate the inventory, it will include data on all the shapes on a page. Grouped shapes are treated as a single shape. To generate an inventory for the shapes in a group, first open the group.

For related information:

See online Help, press F1, click Search, click Index, then type "inventories."
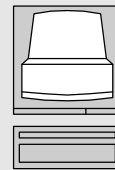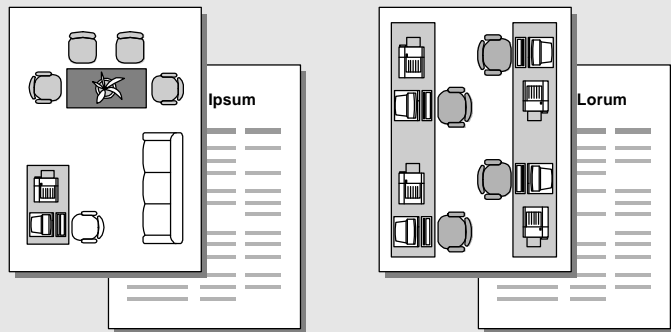
Serial #
M003-8860 502101 XII

Take inventories in Visio to generate text files for tracking information about individual shapes in a diagram.

Choosing inventory content

You can choose what data fields to include in an inventory. Unless you add additional fields, an inventory will include only Quantity (Qty) and Master fields. Qty lists the number of times identical shapes appear in a drawing. Master lists the shape names.

Qty and Master data are automatically assigned to Visio shapes. Other data automatically assigned include ID, Name, Height, Width, and Type.

Your inventory can also include fields for custom data, such as serial numbers, you've associated with shapes.

For related information:
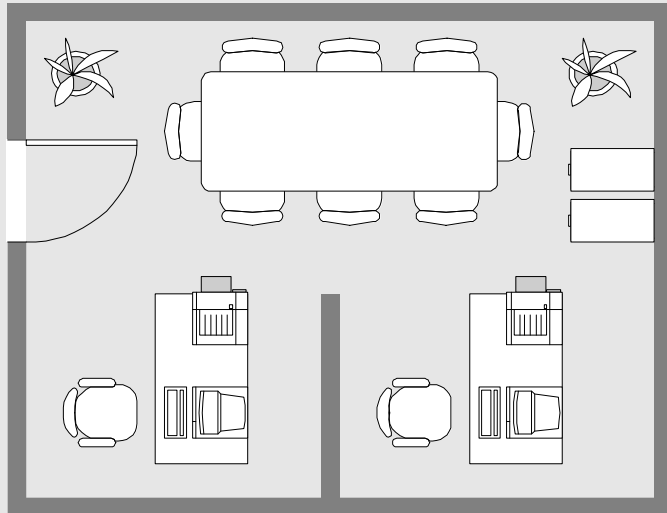
```
Notepad - OFFICE.TXT                                   _ □ ×
File  Edit  Search  Help
Qty     Master   Height  ID      Width
1       Conference table        1,5m    1       4,5m
1       Desk chair       0,6m    11      0,6m
1       Desk chair       0,6m    13      0,6m
1       Desk     0,8m    17      1,6m
1       Desk     0,8m    18      1,6m
1       Door     0,2m    15      1m
1       File     0,5m    20      0,4m
1       File     0,5m    23      0,4m
1       PC       0,67m   26      0,4m
1       PC       0,67m   30      0,4m
1       Plant    0,6m    34      0,6m
1       Plant    0,6m    38      0,6m
1       Printer  0,6m    42      0,6m
1       Printer  0,6m    45      0,6m
```

This office-layout inventory lists the identification number and tracks the quantity and size of each shape in the diagram.

To choose inventory content:

1. If you want to include custom data in your inventory, follow the procedure on page 74 to associate custom properties with shapes.

2. From the Tools menu, choose Shape Report.

3. In the Shape Report box, click Select.

4. In the Select box, select fields in the left list and click Add to add them to the right list.

5. Select fields in the right list and click Up or Down to determine the order in which they appear in the inventory.

6. For Field, select a field you want to sort on, select the sorting order, then click OK.

Select Box Options

A Lists the fields you can inventory, including custom property fields you entered in the ShapeSheet.

B Data you associate with a shape by using the Special command on the Format menu.

C Moves selected fields from one list to another.

D Choose how to sort a field.

E Orders selected fields in the inventory fields list.

F Lists the fields you've included.
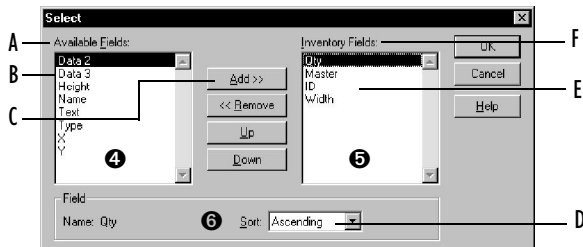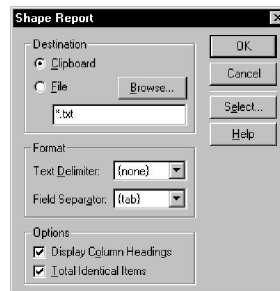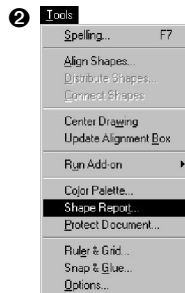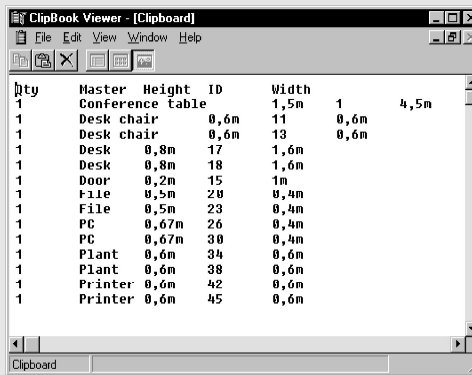
Generating an inventory

Visio gives you options for generating an inventory. You can:

- Copy the inventory to the Windows Clipboard so you can paste it into another program;

- Save the inventory as a text file so you can export it to a spreadsheet or database.
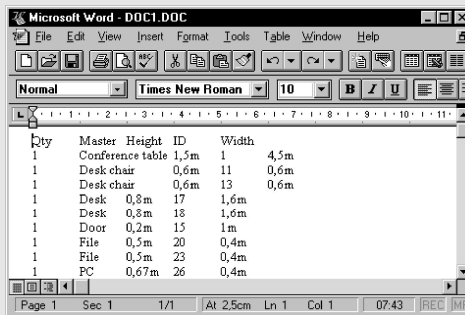
If you intend to export an inventory, you need to set the text delimiters and field separators for the data so the destination program can read the inventory. For information about what delimiters and separators a program reads and for information about how to import the inventory text file, see the documentation for that program.

Before you generate an inventory, decide how you want it to look. For example, you can choose to display field names at the top of each inventory column. The inventory can list each shape individually, or list total instances of the same shape.

To generate an inventory:

1. Follow the procedure described on page 71 to choose inventory content.

2. In the Shape Report box, under Destination, click Clipboard or File.

3. If you clicked File, click Browse to choose a location and name for the text file.

4. If you're exporting the inventory, select the Format options appropriate for the destination program.

5. Check the Options you want for displaying the inventory, then click OK.

Choices for generating an inventory

A Click to copy the inventory to the Windows Clipboard.

B Click to save the inventory as a text file that can be exported.

C Select the Text Delimiter and Field Separator options the program you're exporting the inventory to can read.

D Choose to display field names at the top of inventory columns.

E Check to total duplicate shapes. Uncheck to list each shape individually.
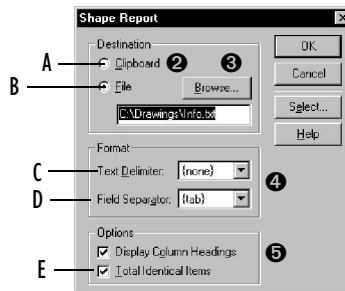
ASSOCIATING PROPERTIES WITH SHAPES

Behind each Visio shape is a ShapeSheet, or spreadsheet, that includes data, or properties, about the shape as well as formulas that tell the shape how to behave. For example, a shape's ShapeSheet includes the shape's name, height, and width. You can generate reports that compile this data for all the shapes on a page.

If you associate custom properties with shapes you can also generate custom reports. For example, you can associate a total quality management shape with the cost, duration, and resources required to complete a step in a process. Or, you can associate a chair with a serial number and office location.

For related information:

To associate properties with a shape:

1. Open a Visio drawing and select a shape with which you want to associate properties.

2. From the Tools menu, choose Run Add-on, then choose SmartShape Wizard.

3. In the Wizard box, choose Custom Properties & Shape Data, click Change Option, then follow the instructions on the screen.
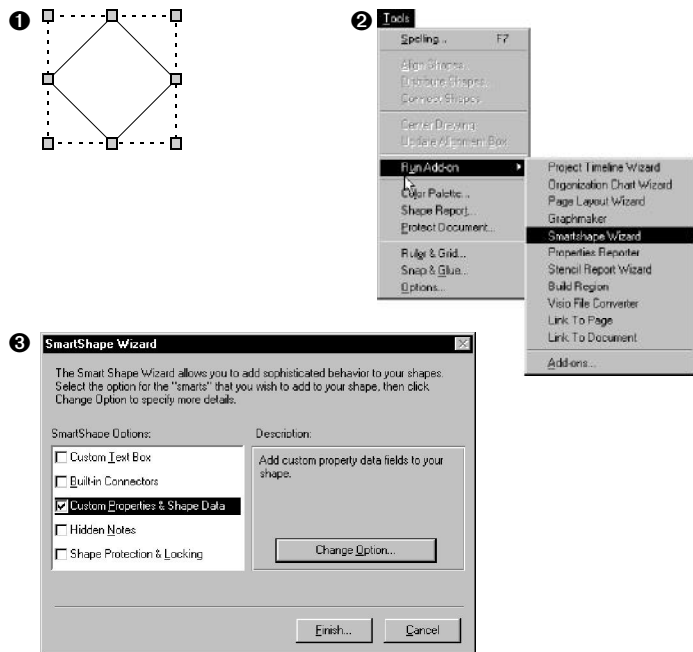
To assign values to a shape's custom properties:

1. Select the shape with values you want to assign.

2. From the Shape menu, choose Custom Properties.

3. In the Custom Properties box, enter values for the properties associated with the shape.
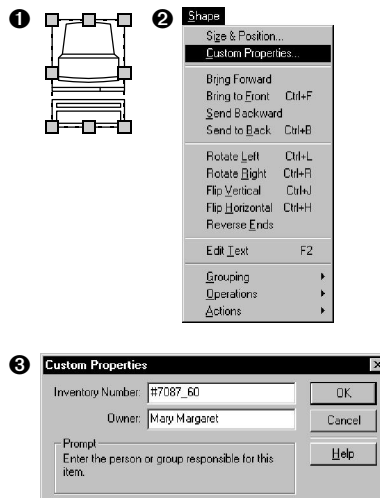
Relationship Diagrams

For an overview of the best way to create relationship diagrams, see "The Big Picture."

To create a relationship diagram from scratch as quickly as possible, turn directly to the "Creating a..." topic that corresponds to the type of diagram you want to create.

For detailed information, see the In Depth topics in this and other chapters.

Topics in this chapter

THE BIG PICTURE

1 Open the Block Diagram or
Mindmapping Template.
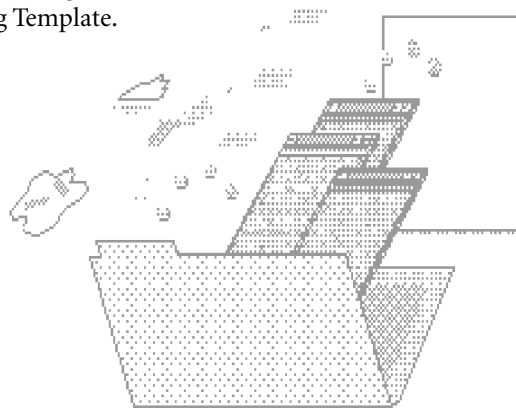
2 Set up the drawing page.
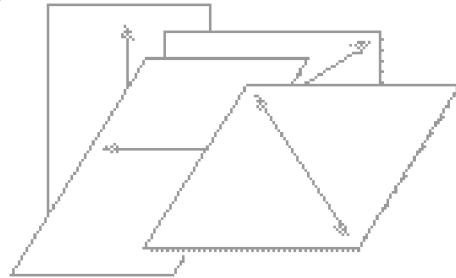
3 Create the diagram's main image
or central theme.
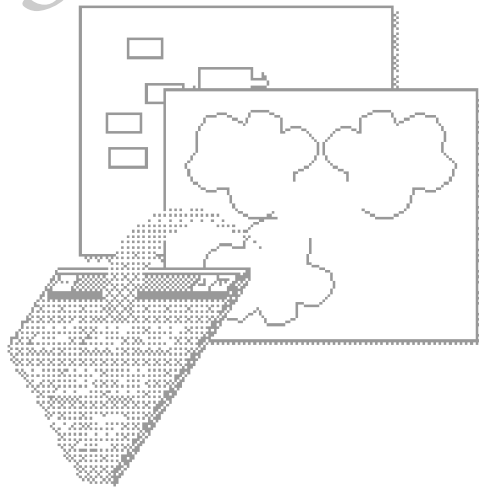
4 Add related ideas.
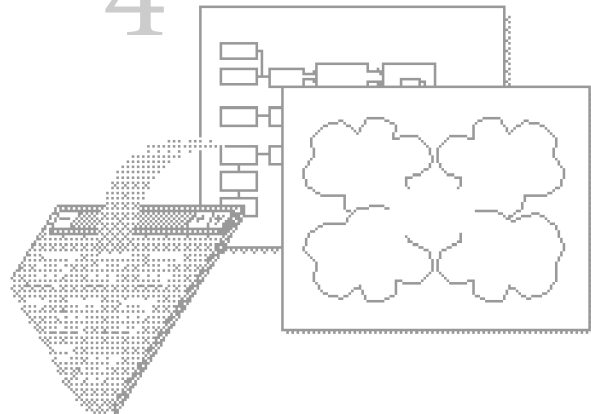
5 Add text.
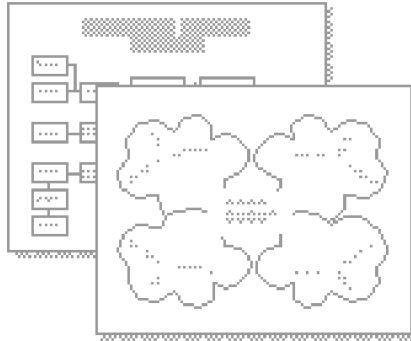
6 Refine the diagram.

7 Save and produce.
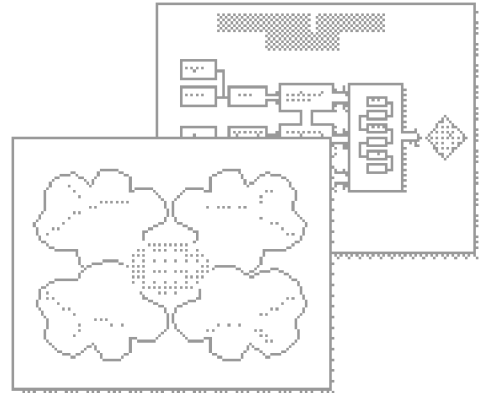
Hendrerit In Vulputate
Elit Esse
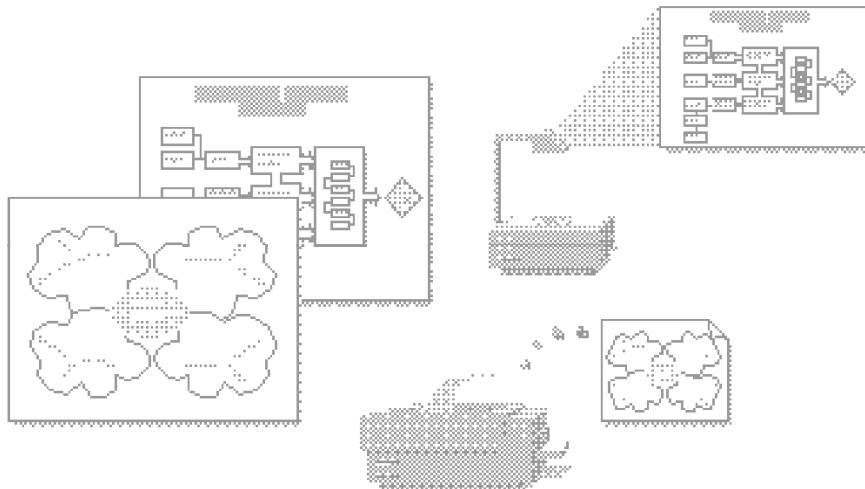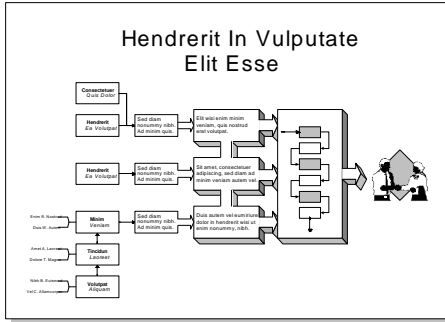
CREATING A BLOCK DIAGRAM

We've provided complete instructions for creating a block diagram. To create your particular diagram, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

To open a block diagram template:

1. Decide whether you want to create a block, raised block, or perspective block diagram.

2. Start Visio.

3. In the New box, under Based On, choose Block Diagram Template to create a block or raised block diagram, or choose Block Diagram (Perspective) Template to create a perspective block diagram. Click OK.
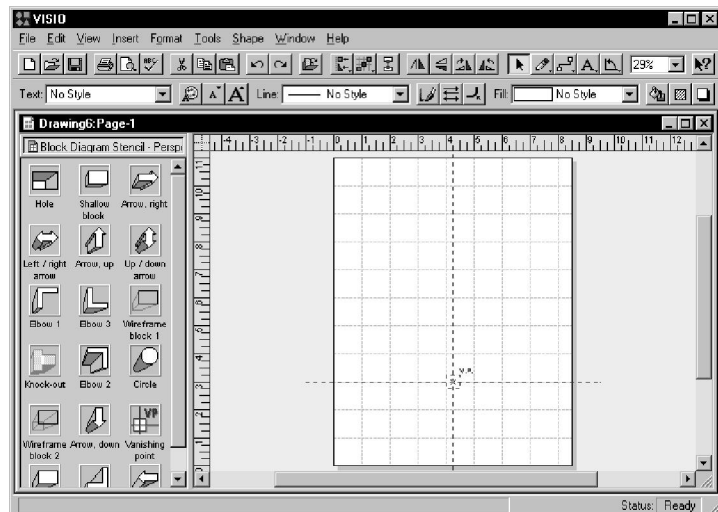
To set up the drawing page:
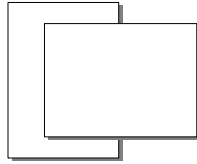
1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Drawing Size/Scale box, click Same As Printer or choose a standard or custom drawing page size, then click OK.

For more details, see:

Create the diagram's main image:

To create the main image:

1. Decide what shape or shapes to use to represent the main idea you want to communicate.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)
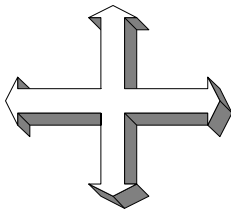
2. Drag and drop the shapes you want to use. For example, using the Block Diagram (Raised) Stencil, you might want to create a four-headed arrow by dragging and dropping an Up/Down Arrow, a Left Arrow, and a Right Arrow shape. Right-click the left and right arrow shapes and choose Open Tail from the shortcut menu.

3. Choose a magnification from the Zoom Control list on the toolbar to zoom in, then align the open-tailed shapes with the up/down arrow. To hide lines, if they're showing, select the open-tailed arrows and choose Bring To Front from the Shape menu.

To create a 3-D perspective diagram:

1. Decide what shape or shapes to use to represent the main idea you want to communicate.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. If the drawing page doesn't already have a vanishing point on it, drag and drop the Vanishing Point shape before you drag and drop any other shapes.

3. Drag and drop the 3-D perspective shapes that represent the central idea. They automatically position themselves according to the position of the vanishing point.
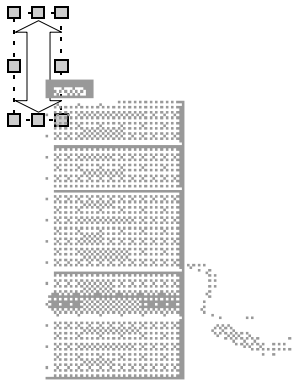
For more details, see:

To add related ideas:

1. Drag and drop tree-shapes (included only on the Block Stencil), arrows, and other shapes to create branch diagrams and add information related to the main idea.

To add text:

To add text to a shape

1. Click the shape, then type the text you want.

To title the block diagram:

1. From the toolbar, choose the text tool.

2. With the crossbar, point to where you want your flowchart title to start, then click and drag a box about the size you think your title will be.

3. Type the title.

4. From the Format menu, choose Font.

5. In the Font dialog box, choose the title text's font, size, color, and style, then click OK.

6. From the toolbar, choose the pointer tool.

7. Click the title text block to select it.

8. Drag a selection handle to change the text block width or height.

9. Position the pointer over the text block. When the pointer turns white, drag the text block to where you want it to appear on the page.

For more details, see:

Refine the diagram

To format block shapes:

1. Select the shape you want to change.

2. From the Format menu, choose Line. In the Line box, choose the options you want, then click OK.

3. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

To format 3-D shapes:
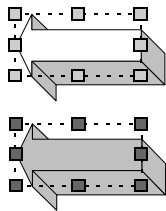
1. Select a 3-D shape, then click to subselect the part of the shape you want to format.

2. From the Format menu, choose Line. In the Line box, choose the options you want, then click OK.

3. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

To open or close the ends of an open-ended block shape:

1. Right-click a shape, then choose the option you want from the shortcut menu.

To change the depth of a 3-D perspective shape:

1. Right-click a shape, then choose Set Depth from the shortcut menu.

2. In the Custom Properties box, choose the depth you want, then click OK.

To change the vanishing point for a 3-D Perspective shape:

1. Select the shape with the vanishing point you want to change.

2. Drag the control handle from the vanishing point to the position where you want the shape's new vanishing point.

To format text:

1. Select the text block or the shape with text you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

For more details, see:

Save and produce the diagram

To name and save a completed block diagram:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the diagram, choose the other options you want, then click Save.

To print a block diagram:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the block diagram in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your block diagram file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

CREATING A MIND MAPPING DIAGRAM

We've provided complete instructions for creating a mind mapping diagram. To create your particular diagram, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

To open the mindmapping template:

1. Start Visio.

2. In the New box, under Based On, choose Mindmapping Template, then click OK.
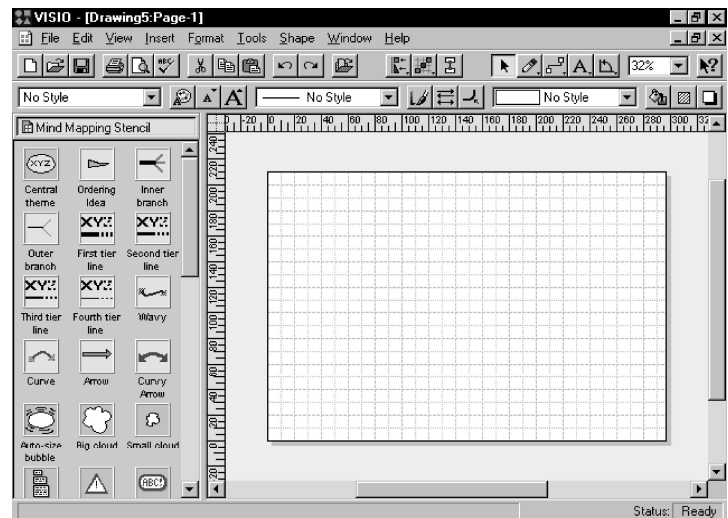
To set up the drawing page:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Drawing Size/Scale box, click Same As Printer or choose a standard or custom drawing page size, then click OK.

For more details, see:

To create the diagram's central theme:

1. Drag and drop a Central Theme shape.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. The central theme automatically moves to the center of the page (you can move it if you want). Click the shape and type to replace existing text.
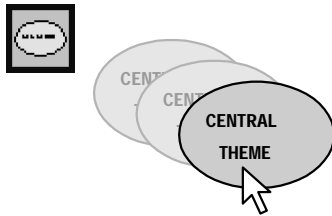
For more details, see:

Imset Pretu
Anetn Bisre Fi

Isant Elliu

L OREM IPSUM

Central Theme shape
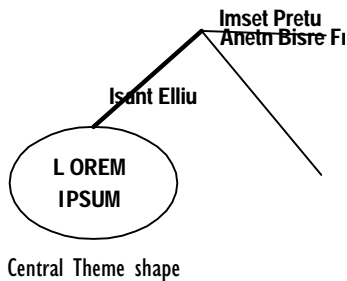
To add related ideas:

1. Drag and drop an Inner Branch or Ordering idea shape and connect it to a connection point on the central theme. Type text for the idea the branch represents.

2. If you want, drag an Inner Branch or Ordering idea endpoint to change the orientation of the line.

3. Drag the control handle at the center of the inner branch line to add one or more second tiers. Type text for the ideas the second tier branches represent.

4. Drag and drop an Outer Branch shape and connect it to the connection point on the end of an inner branch second tier. Type text for the idea the inner branch represents.

5. Drag the control handle at the center of the outer branch line to add one or more fourth tiers. Type text for the ideas the fourth tier branches represent.

6. If you want to add paragraphs of text to branches or tiers, drag and drop an Auto-size Box shape, then drag its control handle to a connection point on a branch or tier.

7. If you want, drag and drop a Big Cloud or Small Cloud shape to enclose an inner branch and all its tiers. Drag selection handles to change cloud size and control handles to change cloud shape. (You can also choose the freeform tool from the drawing tool menu on the toolbar and draw cloud shapes around ideas).

8. Drag and drop clip art to enhance the meaning of the diagram.
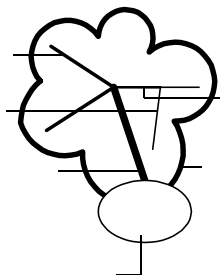
For more details, see:

To add independent text:

1. Drag and drop the Rounded Stamp, Growing Bubble, Auto-size Box, or other shapes.

2. Select the shape, then type the text you want to add.

3. You can also choose the text tool from the toolbar. With the crossbar, point to where you want the text to start, drag a box about the shape you want the text block to be, then type the text. When you're finished typing, click the pointer tool.

For more details, see:

Refine the diagram

To resize the entire mind mapping diagram:

1. From the Edit menu, choose Select All.

2. From the Shape menu, choose Grouping, then choose Group.

3. Drag a selection handle until the diagram is the size you want.

4. From the Shape menu, choose Grouping, then choose Ungroup.

To color a mind mapping diagram by ideas:

1. Select all the inner and outer branches that make up an idea.

2. From the Format menu, choose Line.

3. In the Line box, choose the color you want for the idea, then click OK.

To color a mind mapping diagram by tier:

1. From the View menu, choose Layer Properties.

2. In the Layer Properties box, choose the tier you want to color.

3. Click in the Color column, then choose the color you want from the Layer Color list at the bottom of the box.

4. When you've colored all the tiers, click OK.

Save and produce the diagram

To name and save a completed mind mapping diagram:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the cluster diagram, choose the other options you want, then click Save.

To print a mind mapping diagram:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the mind mapping diagram in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your mind mapping diagram to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

POSITIONING SHAPES ON THE PAGE

Visio has several features that help you position shapes on the drawing page:

- Each drawing page has vertical and horizontal rulers. You can specify ruler measurement units and place the zero point anywhere on the page.

- Each drawing page is crisscrossed by grid lines. You can control how many lines appear in the grid and change the point where the grid originates. If your diagram requires a specialized grid (for example, an office layout organized around a 60 cm x 60 cm ceiling grid), you can even set the Visio grid to match it.

- You can drag guides and guide points from the ruler onto the drawing page. Guides are easier to see than grid lines and can be placed anywhere on the drawing page.

- Once several shapes are on a page, you can align or distribute them with respect to one another.

For related information, see online Help: click Search, click Index, then type "rulers," "guides," "grid," "align," or "distribute."

Align and Distribute commands

Guide point

Rulers

Guide

Grid lines
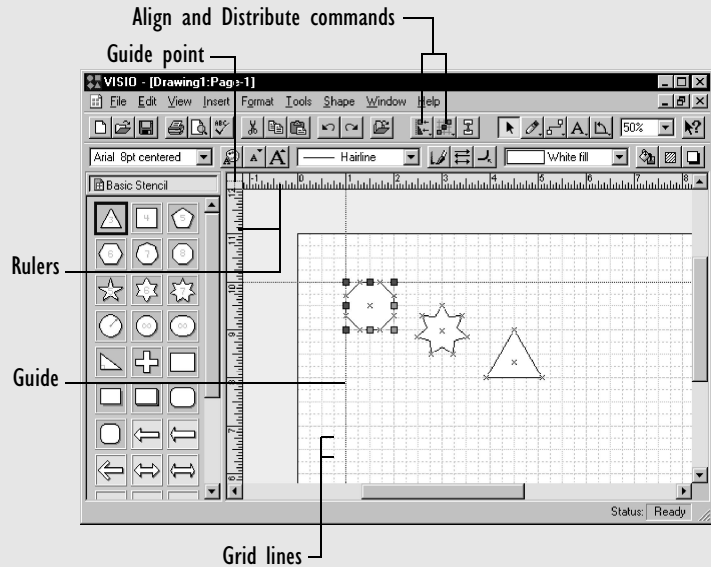
Visio's drawing page is designed to make positioning shapes easy, flexible, and accurate.
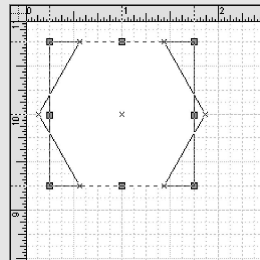
When you begin to drag a shape on the drawing page, lines appear on the rulers. Use the lines to position the shape.
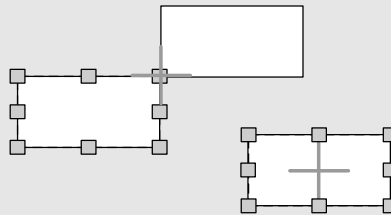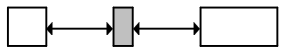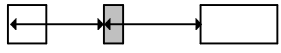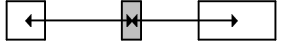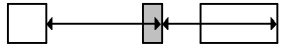
Use guide points to align shapes with respect one another.

Preparing to Position Shapes

To	Do This
Set ruler measurement units	From the Edit menu, choose Drawing Page, then choose Properties. In the Page Properties box, under Measurements, choose the units you want, then click OK.
Change the position of the ruler zero point on both rulers	Hold down the CTRL key, then drag from the intersection of the two rulers to where you want the new zero point. Unless you've customized the grid origin, it moves along with the ruler zero point.
Change the position of the ruler zero point on one ruler	Hold down the CTRL key, then drag from the other ruler.
Return the zero point to its default location	Hold down the CTRL key, then double-click on the intersection of the two rulers.
Change ruler subdivisions	From the Tools menu, choose Ruler and Grid. In the Ruler and Grid box, under Rulers, choose the kind of subdivisions you want.
Place a guide on the drawing page	Point to the ruler from which you want to drag a guide. Horizontal guides come from the horizontal ruler and vertical guides from the vertical ruler. Drag to where you want the guide.
Place a guide point on the drawing page	Point to the intersection of the two rulers. Drag to where you want the guide point.
Align shapes with guides or guide points	Drag shapes until their selection handles, endpoints, or connection points align with the guides or guide point.
Delete guides or guide points	Click to select the guide or guide point you want to delete. They turn green when selected. From the Edit menu, choose Clear.
Set the coarseness of the grid	From the Tools menu, choose Ruler and Grid. In the Ruler and Grid box, under Grid Spacing, choose the horizontal and vertical coarseness you want.
Change the spacing of the grid	From the Tools menu, choose Ruler and Grid. In the Ruler and Grid box, under Minimum spacing, type the horizontal and vertical grid spacing you want.
Change the point where the grid originates	From the Tools menu, choose Ruler and Grid. In the Ruler and Grid box, under Grid Origin, type the coordinates where you want the grid to originate. By default the grid origin is in the lower left corner of the drawing page.

More ➤

Distribution Options
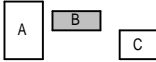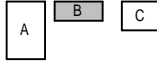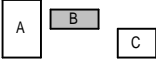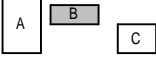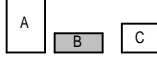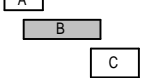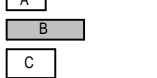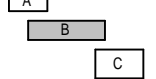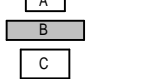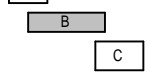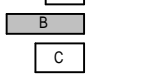
From here	Choose this Distribute option	To get here
	Horizontal ends distribution	
	Left distribution	
	Horizontal center distribution	
	Right distribution	
	Vertical ends distribution	
	Top distribution	
	Vertical center distribution	
	Bottom distribution	

To distribute shapes:

1. Select three or more shapes.

2. From the Tools menu, choose Distribute Shapes.

3. In the Distribute box, click the distribution option you want.
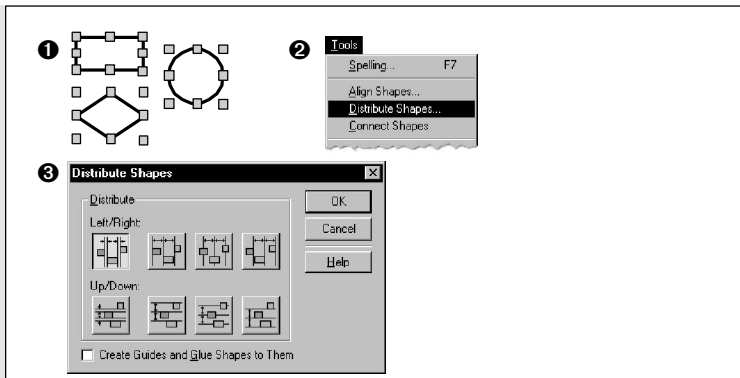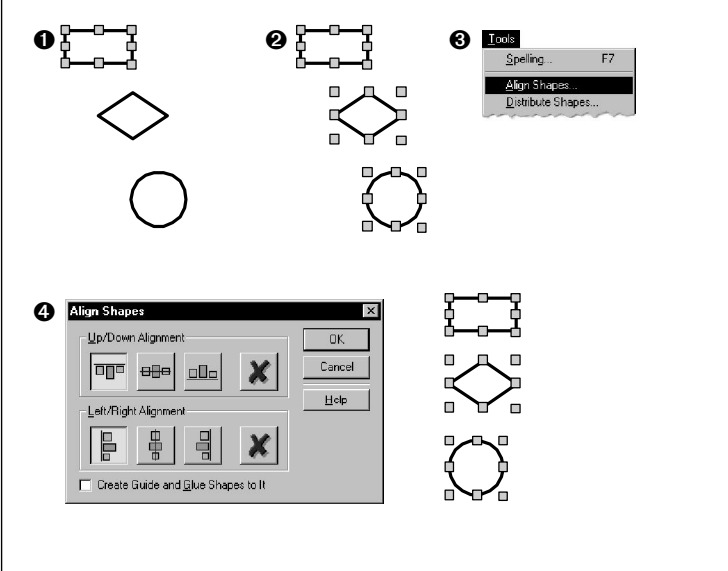
Alignment Options

From here	Select	Choose this Align option	To get here
A B C	Shape A first	Top align	A B C
A B C	Shape B first	Horizontal align	A B C
A B C	Shape C first	Bottom align	A B C
A B C	Shape A first	Left align	A B C
A B C	Shape B first	Vertical align	A B C
A B C	Shape C first	Right align	A B C

To align shapes:

1. Select the shape you want to align other shapes to.

2. Hold down Shift and select the other shapes.

3. From the Tools menu, choose Align Shapes.

4. In the Align box, click the alignment option you want. Click the red X to deselect an option.

❶ ❷ ❸ Tools
  Spelling... F7
  Align Shapes...
  Distribute Shapes...

❹ Align Shapes
  Up/Down Alignment
  OK
  Cancel
  Help
  Left/Right Alignment
  ☐ Create Guide and Glue Shapes to It

GROUPING AND UNGROUPING SHAPES

Grouping means joining separate shapes into one group. Grouping is handy when you regularly use several shapes together or when you want to move, size, rotate, or format them all at the same time.

You can:

- Group any shapes or objects on the same drawing page, including guides and objects from other applications;

- Group any shapes or objects on the same or different layers;

- Add or delete shapes from groups without ungrouping; and

- Edit all the shapes in a group at the same time or edit one shape individually.

When you format a group, formatting affects all shapes in the group. When you add text to a group, the text appears only on the frontmost or primary shape. The primary shape is the first shape you selected when you originally grouped the shapes.

In online Help: press F1, click Search, click Index, then type "grouping."
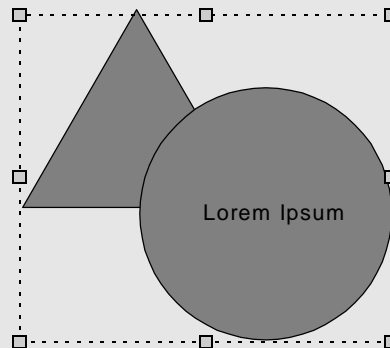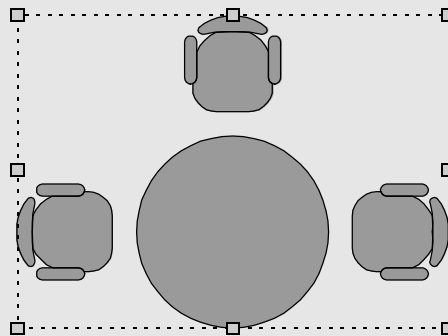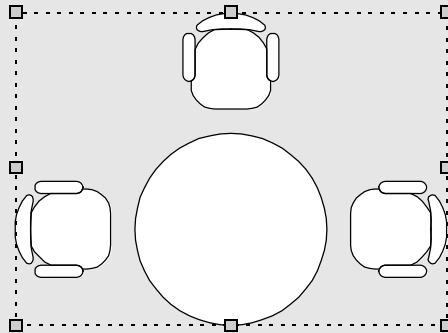
Working with groups

To	Take these steps
Group shapes and objects	Select the shapes and objects you want to group. Press the Shift key to select multiple shapes From the Shape menu, choose Grouping, then choose Group.
Ungroup shapes and objects	Select a group. From the Shape menu, choose Grouping, then choose Ungroup.
Edit an entire group	Select the group. Size, move, format, or add text to the group as you would for any other shape.
Add a shape to a group	Select the group, then press the Shift key and select the shape you want to add. From the Shape menu, choose Grouping, and then choose Add To Group.
Subselect a shape in a group	Select the group, then click the shape you want to subselect. Its selection handles turn gray.
Remove a shape from a group	Select the group, then click to subselect the shape you want to remove. From the Shape menu, choose Grouping, then choose Remove From Group.
Make one shape the frontmost shape	Select the group, then subselect the shape you want at the front. From the Shape menu, choose Bring To Front.
Edit a shape within a group	Select the group, then click to subselect the shape you want to edit. From the Format menu, choose commands to format the shape the way you want.
Add text to a particular shape in group	Select the group, then subselect the shape you want text added to.
Size one shape differently from other shapes in the group	Select the group. From the Edit menu, choose Open Group. In the group window, select the shape you want to size differently. From the Format menu, choose Behavior. In the Behavior box, under Resize Behavior, click Reposition Only, then click OK. Click the X in the upper-right corner to close the group window. When you resize the group, the selected shape doesn't resize.
Assign a group to a layer	Select the group. From the Format menu, choose Layer. In the Layer box, choose the layer you want the group to belong to, then click OK.
Preserve the separate layer assignments of shapes in a group	Select the group. From the Format menu, choose Layer. In the Layer box, check Preserve Group Member Layers.

USING 3-D PERSPECTIVE

In a 3-D perspective diagram, Visio orients the 3-D shapes to a vanishing point. You can create block diagrams with 3-D perspective using Visio's Perspective Block Diagrams template. You can set up a block diagram so that Visio orients all the 3-D shapes to the same vanishing point. You can also adjust the vanishing point for a particular shape.

Built in to Visio's 3-D perspective template are some features that make creating and revising diagrams easier. For example, when you're working with the shapes, you can hide their 3-D appearance so they're easier to place on the page. You can also quickly change shape appearance and shape depth.
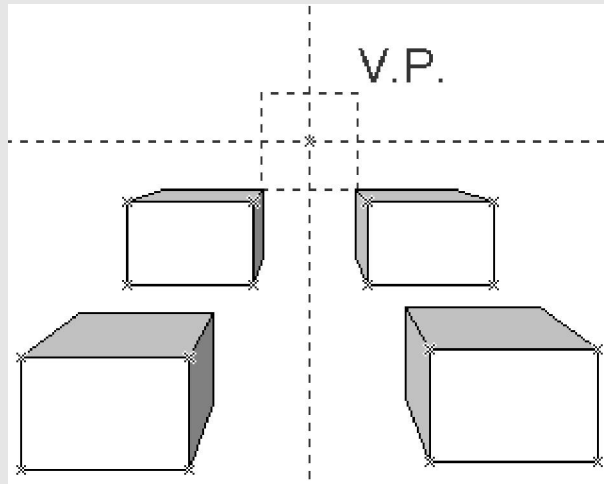
The Perspective Block Diagrams template includes a vanishing point shape on the drawing page. When you drag and drop 3-D shapes, they automatically find the vanishing point and adjust their appearance accordingly.

To create a 3-D perspective diagram:

1. Start Visio and open the Block Diagram (Perspective) template.

2. Drag and drop the 3-D shapes you want to include in your drawing. They orient themselves to the vanishing point.

3. Drag the vanishing point so that the 3-D shapes look the way you want.

Tip: To orient a shape to a different vanishing point from the other shapes, select the shape, then drag its control handle (which is glued to the vanishing point) to a new location or glue it to a different vanishing point.
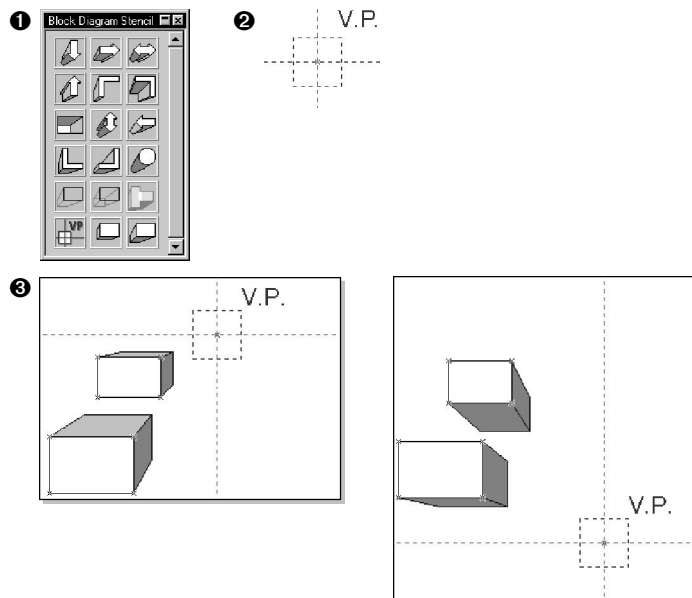
To hide a shape's 3-D appearance:

1. In a 3-D perspective diagram, from the View menu, choose Layer Properties.

2. In the Layer Properties box, under Name, choose 3-D Depth.

3. Click under Visible to make the shape disappear, then click OK.

4. When you're finished, click under Visible in the Layer Properties box to make the shape appear.

5. To arrange the 3-D shapes on the page, select shapes and, from the Shape menu, choose Bring Forward or Send Backward.
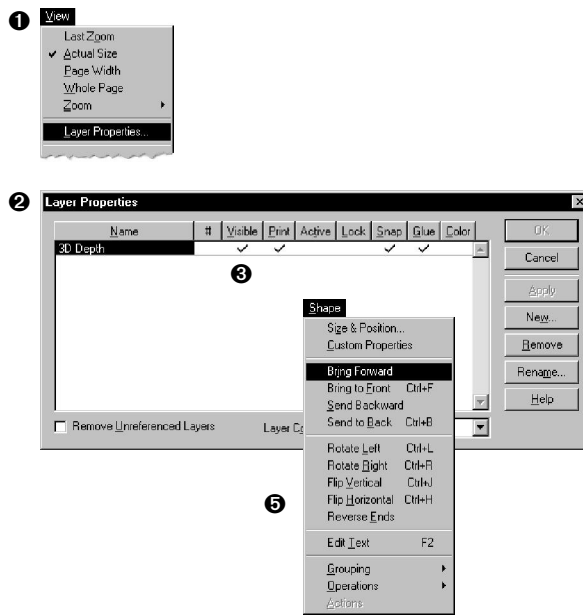
To change a 3-D shape's appearance:

1. Select the shape, then click part of the shape to subselect it.

2. From the Format menu, choose Define Styles.

3. In the Define Styles box, under Change, click Fill or Line.

4. In the Fill or Line box, choose the options you want, then click OK.

5. In the Define Styles box, click Apply.

Tip: To change shape depth, right-click a shape, then choose Set Depth from the shortcut menu. In the box, under Depth, choose the depth you want, then click OK.
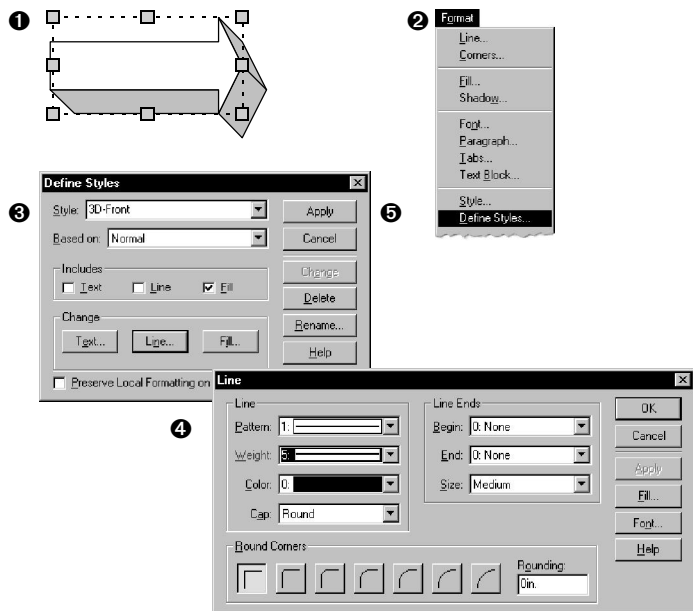
MAKING SHAPES SMARTER

Using the SmartShape Wizard, you can change the way existing Visio shapes, or shapes you've created, behave. For example, you can:

- Associate custom data, or properties, with a shape;

- Change the position of a shape's text block;

- Add a control handle that controls text block position;

- Set protection behavior that prevents a shape from being modified in certain ways.
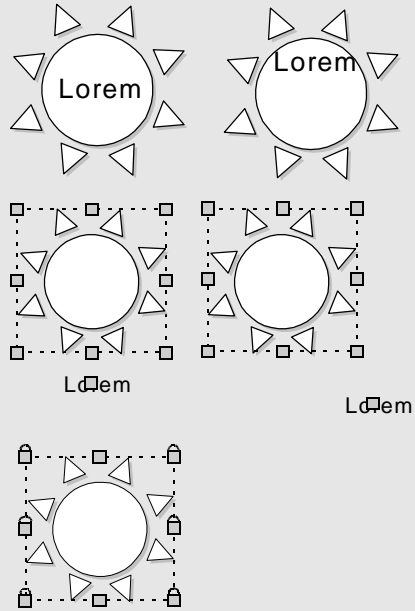
To make a shape smarter:

1. Select the shape you want to make smarter.

2. From the Tools menu, choose Run Add-On, then choose SmartShape Wizard.

3. In the SmartShape Wizard box, choose the options you want, then click OK.

Tip: The ShapeSheet offers many other ways to change shape behavior.

For related information, see online Help: press F1, click Search, click Find, then type "shapesheet."
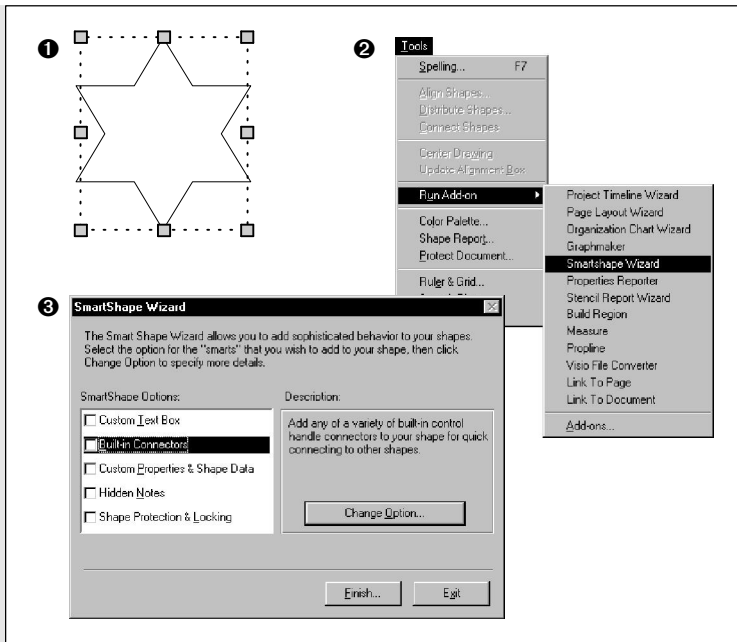
CONTROL HANDLES

Control handles are special handles associated with some Visio shapes. The function of control handles is specific to a shape's design and purpose.

For related information, see online Help: press F1, click Search, click Index, then type "control."
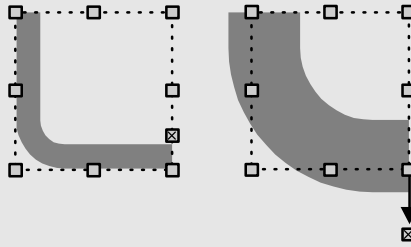
Drag the control handle on a road shape from the Map stencil to control the thickness of the road.
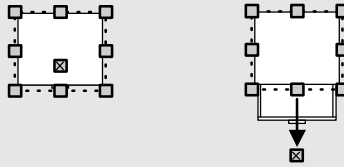
Drag the control handle on the file cabinet from the Office Layout stencil to open the drawer and check for clearance.

Open Drawer
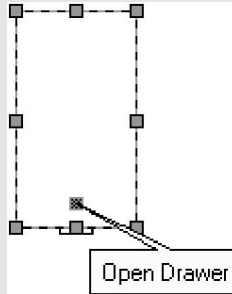
Pause the pointer over a control handle to learn how moving the handle affects the shape.

Project Timelines

For an overview of the best way to create a project timeline, see "The Big Picture."

To create a project timeline as quickly as possible, turn directly to "Creating a Project Timeline."

For detailed information, see the In Depth topics in this and other chapters.

Topics in this chapter

THE BIG PICTURE

1 Prepare the data for the project timeline, under headings such as task names, duration, start and end dates, and resources.
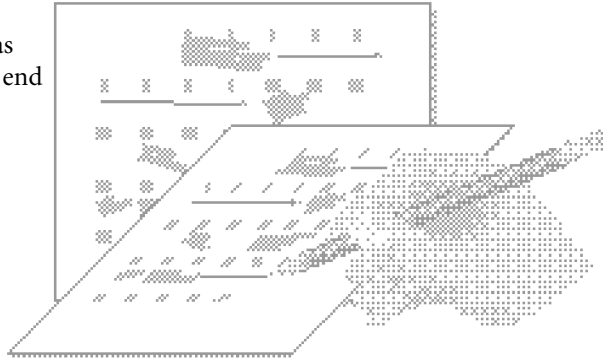
2 Open the Project Management Wizard template.
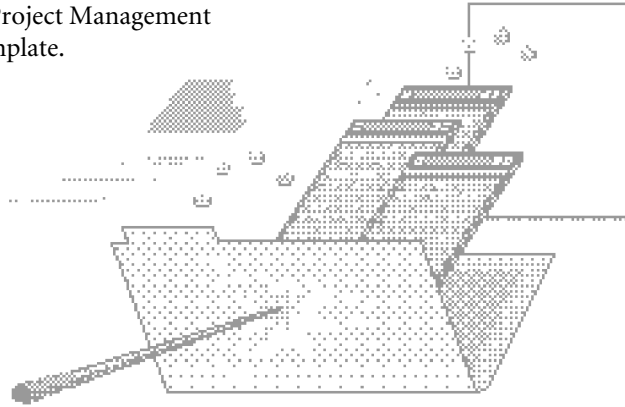
3 Create a Microsoft Excel spreadsheet, or a text file, or read data from an existing spreadsheet or text file.
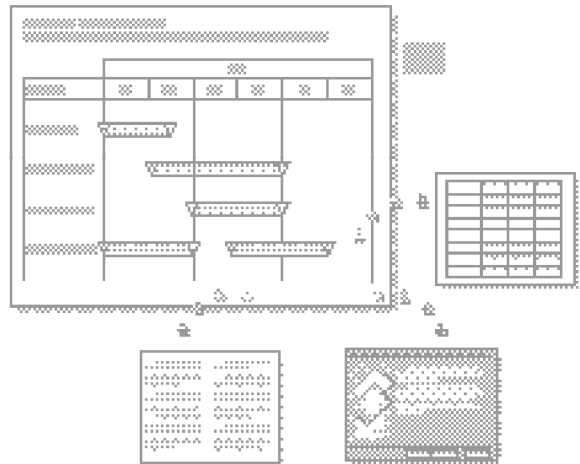
4 Follow the steps in the Wizard to lay out, format, and create the project timeline.
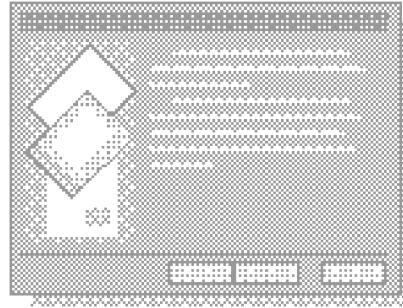
5 Refine the timeline.

6 Save and produce.

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			1996			

Euismod Laoree — Vel eumiriure

Consectetuer Elit — Duis autem vel

Dolor In Hendrerit — Aliquam

Exerci Susipit — Consequat / Magna

Lobortis Nusl — Dolore magna

Sed Diam Elit — Hendrerit

Erat Volutpat — Quis nostrud

Ex Commodo — Nonummy nib

Velit Molestie — Lobortis

Hendrerit Vel — Quis

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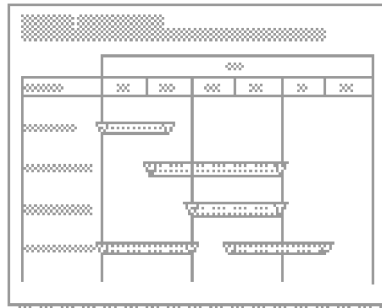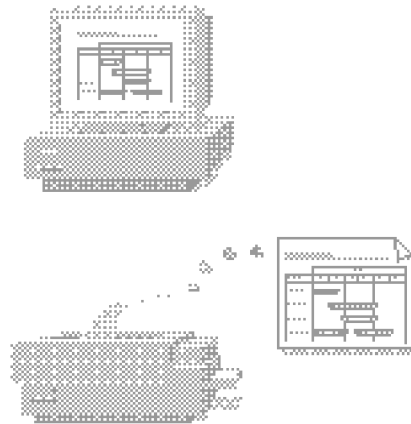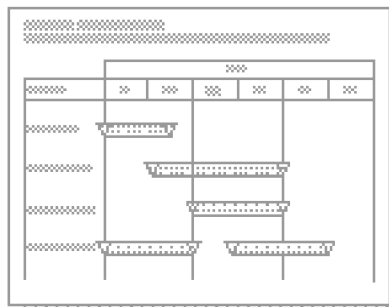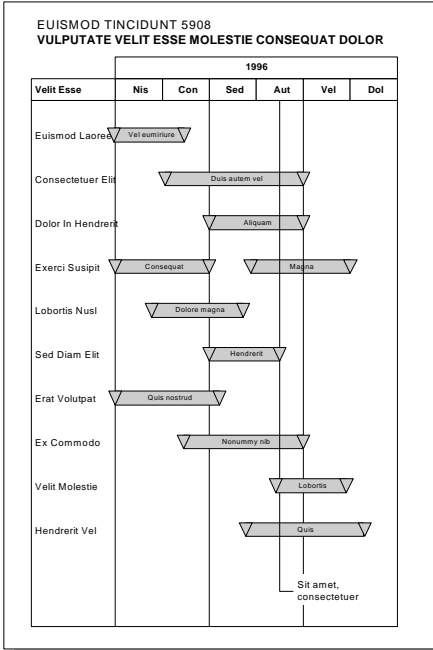
CREATING A PROJECT TIMELINE

We've provided complete instructions for creating a project timeline. To create your particular timeline, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

Prepare project timeline data

- Prepare your data to fall under the following column headings: Task Number, Task Name, Duration, Start Date, End Date, Dependency, and Resource. For Dependency, enter the Task Number that the current task depends on.

- If your data is in a comma- or tab-delimited text file or a spreadsheet file, you can use that file to create the project timeline.

- If your data doesn't exist in electronic form, start Visio's Project Timeline Wizard and use one of its templates to enter it.

To open the Project Timeline Wizard:

1. Start Visio.

2. In the New box, under Based On, choose Project Timeline Wizard, then click OK.

To enter your project timeline data:

1. On the first screen of the Project Timeline Wizard, click Next.

The Wizard's second screen

2. When Visio asks you to Select a Data Source, choose Read Data From Existing File, then click Browse to locate the text or spreadsheet file in which you listed the tasks. If you haven't created a text or spreadsheet file, click Enter Data for the type of file you want to create, or click None to have Visio lay out a timeline grid and a specified number of tasks.

3. Follow instructions onscreen to lay out, format, and create the project timeline.

Revise and update the timeline

To set task and milestone formatting properties for the entire timeline:

1. Click the page where there are no shapes.

2. Right-click and from the shortcut menu, choose Layout Properties.

3. In the box, under Tasks, specify formatting options for all the timeline bars on the page.

4. Under Milestones, specify formatting options for all the milestone shapes on the page.

5. Click OK.

To set grid line, dependency connector and other formatting properties for the entire timeline:

1. Click the page where there are no shapes.

2. Right-click the page and from the shortcut menu, choose the line, bar height, or connector option you want.

To change task start and end dates:
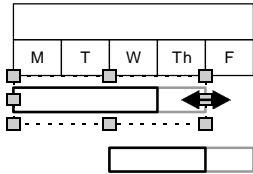
1. Select the timeline bar with dates you want to change.

2. Drag an end selection handle until the bar is aligned with the correct date.

To change the look of a timeline bar or a milestone:

1. Right-click the timeline bar or milestone you want to change, then choose Task Layout or Milestone Layout from the shortcut menu.

2. In the box, select the options you want, then click OK.

To create or break dependencies between tasks:

1. Right-click the page (with no shapes selected) or a timeline bar.

2. From the shortcut menu, choose Layout Properties or Task Properties.

3. In the box, under Dependencies, follow the instructions to create or break dependencies between tasks.

To edit text:

1. Double-click the text you want to edit.

2. Type the new text with which you want to replace the old text.

3. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.
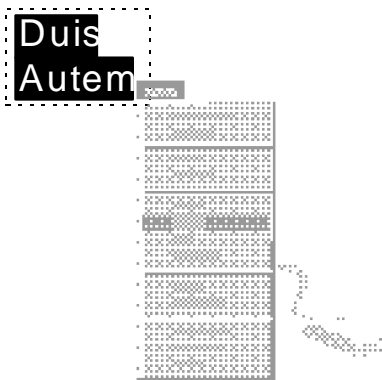
To delete the text associated with a timeline bar or milestone:

1. Double-click the text you want to delete, then press the Delete key.

To add a task name or label not associated with a timeline bar or milestone:

1. Drag and drop a Task Label, Task Names, or Task Name Text Block shape, then place it where you want it in the Gantt grid.

To add a task to the end of the timeline:
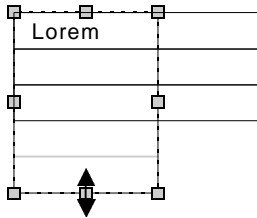
1. Click a line in the text column to select the shape.

2. Drag the bottom center selection handle to extend the column.

3. Click a line in the Gantt grid to select the shape.

4. Drag the bottom center selection handle to extend the grid.

5. Drag and drop a Timeline shape, so that the left edge of the bar lines up with the start date for the task.

6. Drag the right end of the bar until it lines up with the end date of the task.

7. Drag the timeline bar control handle until it aligns with the left border of the text column.

To insert a task into the timeline:
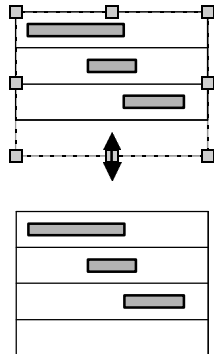
1. Click a line in the text column to select it.

2. Drag the bottom center selection handle to extend the column.

3. Click on a line in the Gantt grid to select it.

4. Drag the bottom center selection handle to extend the grid.

5. Press the Shift key and select all the timeline bars above which you want the task inserted.

6. Drag the timeline bars down one row in the text column and Gantt grid.

7. Drag and drop a Timeline shape into the empty row, so that the left edge of the bar lines up with the start date for the task.

8. Drag the right end of the bar until it lines up with the end date of the task.

9. Drag the timeline bar control handle until it aligns with the left border of the text column.

To reorder timeline tasks:
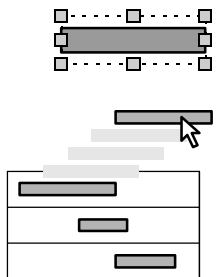
1. Click a timeline bar to select the first task you want to reorder.

2. Drag the bar off the Gantt grid.

3. Click a timeline bar to select the second task you want to reorder.

4. Drag the bar into the space originally occupied by the first task.

5. Drag the bar for the first task into the space originally occupied by the second task.

To delete a task:

1. Click a timeline bar to select the task you want to delete.

2. Press the Delete key.

3. Press the Shift key to select all the bars below the deleted task, then drag them up one row in the text column and Gantt grid.

4. Click a line in the text column to select the shape.

5. Drag the bottom center selection handle to shorten the column.

6. Click on a line in the Gantt grid to select the shape.

7. Drag the bottom center selection handle to shorten the grid.

To modify the text column, Gantt grid, or year, month, or week label:

1. Right-click the shape you want to modify and choose an option from the menu for displaying grid lines.

2. Select the shape you want to modify, and choose Line from the Format menu. In the Line box, choose the formatting options you want, then click OK.

For more details, see:

Save and produce the project timeline

To name and save a completed timeline:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the timeline, choose the other options you want, then click Save.

To print a timeline:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the timeline in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your timeline to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

OPENING AND MOVING STENCILS

Stencils are collections of ready-made master shapes you can drag and drop onto the drawing page to create diagrams. When you open a Visio template, you open a drawing page and the stencils you need to draw a particular type of diagram. If you want to use shapes from stencils that didn't open with the template, you can open the stencils separately.

Stencils open as read-only by default. That means you can drag and drop shapes from them but you can't edit their master shapes or change the original stencils in any way.

Visio lets you control how master shape icons display on a stencil. You can show both icons and icon names, icons only, or names only. If you show both icons and names, you may need to scroll to see all the shapes on the stencil.

For related information:

See online Help: press F1, click Search, click Index, then type "stencils."
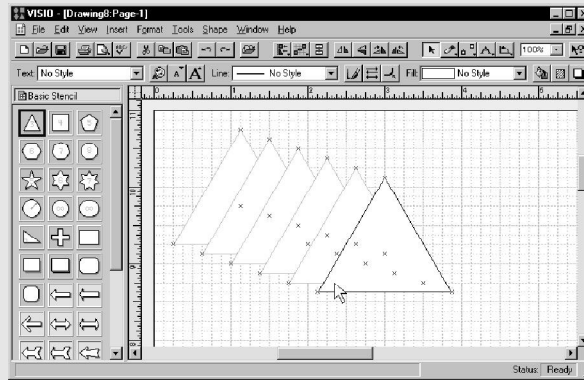
Many Visio templates open with just one read-only stencil positioned along the left side of the drawing window. Drag a master shape from a stencil to include a copy of that shape in a diagram.
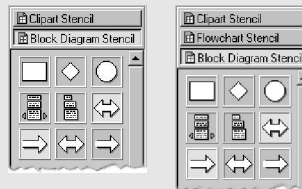
If you open additional stencils, they cascade on top of the first stencil. To use the shapes on a particular stencil, click that stencil's name.
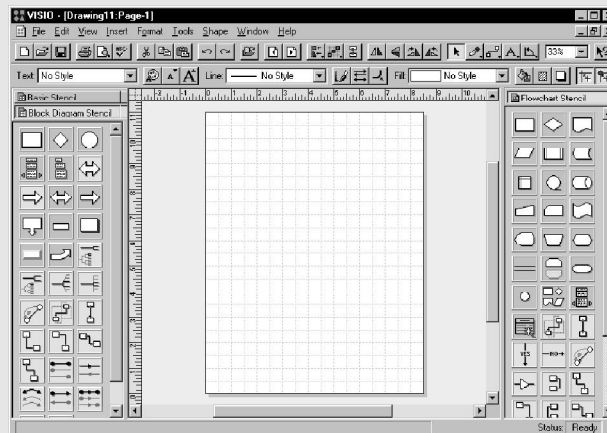
To view more than one stencil at a time, right-click the icon in the stencil's upper-left corner, then choose Float or Switch Sides from the shortcut menu.

To open a stencil:

1. From the Visio File menu, choose Stencils.

2. In the Stencils box, choose the stencil you want to open, then click OK.

Tip: To close, float, or dock a stencil on the other side of the drawing page, right-click the icon in the upper-left corner of the stencil then choose an option from the shortcut menu.

❶
```
File
  New...        Ctrl+N
  Open...       Ctrl+O
  Close

  Save          Ctrl+S
  Save As...
  Save Workspace...

  Properties...
  Stencils...
```

❷
```
Stencils                                        ×
Select Stencil:                              OK
  Block Diagram Stencil                    Cancel
  Block Diagram Stencil - Perspective
  Block Diagram Stencil - Raised          Browse...
  Border Stencil
  Callout Stencil                           Help
  Chart Stencil
  Clipart Stencil
  Cluster Diagram Stencil
  Connector Stencil                    Open
  Demo Stencil                          ○ Original
  European Map Stencil
  Flags Stencil                         ● Read Only
  Flowchart Stencil

Description
*This file is open read-only in this instance of Visio.
A Visio stencil containing a variety of commonly used flowcharting
shapes.

Filename:  c:\program files\visio\stencils\flowchrt
```

To change how master shape icons display:

1. Right-click the green background of the stencil.

2. From the menu, choose the display option you want.

   The master shape icons change to reflect your choice.

❶
```
Basic Stencil

△  □  ⬠
⬡  ○  ○
☆  ✦  ✧
◔  ◕  ⬭
```

```
Close
Copy
Icons and Names
✓ Icons Only
Names Only
Shape Help
```
❷

```
Basic Stencil

△          □
Triangle    Square

⬠          ⬡
Pentagon   Hexagon

◔          ◕
Heptagon   Octagon
```
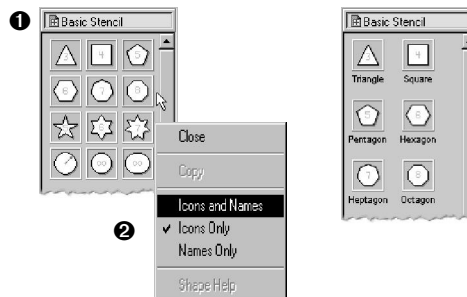
CREATING AND EDITING STENCILS

Whenever you create a Visio diagram, Visio creates a stencil specific to that drawing file. A drawing file stencil includes all the shapes used in your diagram, no matter which stencil you originally dragged them from. You can edit master shapes on the drawing file stencil. Changes you make in a master shape affect all instances of that shape in your diagram. If you frequently draw diagrams that use the same shapes, you can save the drawing file stencil as an independent stencil. Then, you can open that stencil whenever you want to include its master shapes in a diagram.

For some purposes, you may want to edit one of Visio's original stencils. For example, you might want to add a shape you use frequently from the Network stencil to the Block Diagram stencil. To edit a stencil, it's best to open a copy of the original. Then, the original is still available for you to use in the future.

You can also create a new stencil from scratch. The new stencil can either be based on an existing stencil, in which case it includes all the master shapes from that stencil, or it can be blank. In either case, you can create masters on the stencil from shapes you draw or bring into Visio from other programs.

For related information:

See online help: press F1, click Search, click Index, then type "stencils."
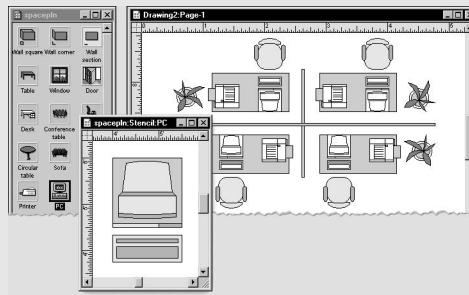
The quickest way to update all the copies of a particular shape you've used in a diagram is to edit the master shape on the drawing file stencil.
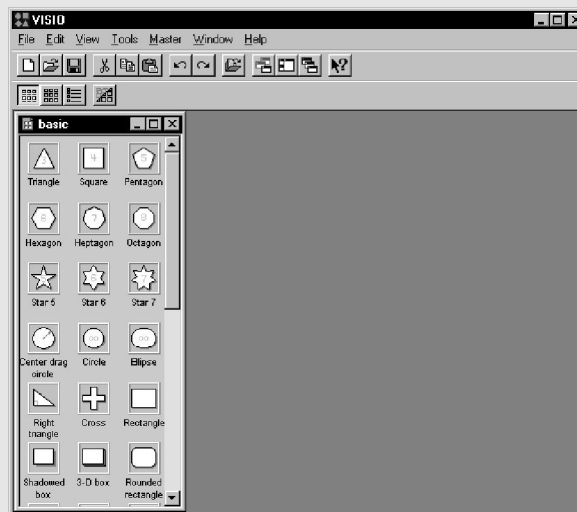
When you open a copy of an original stencil or a drawing file stencil, the stencil opens in a separate window from the drawing page and has its own set of menus and commands.

To open a drawing file stencil and edit a master shape:

1. From the Window menu, choose Show Master Shapes to open the drawing file stencil.

2. In the drawing file stencil, double-click the master shape you want to edit.

3. In the master shape drawing window, edit the master shape.

4. Click the x in upper-right corner to close the drawing window. When Visio asks if you want to update the master and its instances, click Yes.

Tip: To save a drawing file stencil as a stand-alone stencil you can use in other diagrams, click the stencil's title bar to make it active. From the File menu, choose Save As. In the Save As box, under Save As, choose Stencil (*.VSS). Type a name for the stencil, then click OK.

❶ Basic Stencil
Triangle Square
Pentagon Hexagon
Heptagon Octagon

❷ Drawing6:Ste...
Square Heptagon

❸ Drawing6:Stencil:Square

❹ VISIO
Update 'Square' and all of its instances?
Yes   No   Cancel
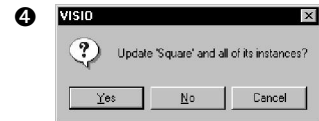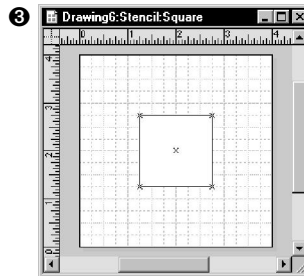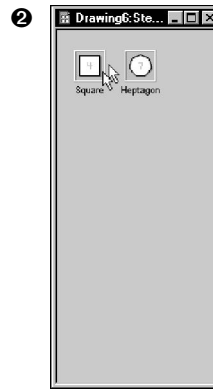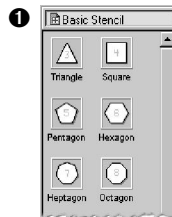
To open a copy of and edit an original stencil:

1. From the File menu, choose Open.

2. In the Open box, choose the stencil you want to open. If you don't see the stencil, locate the stencil folder in the Visio folder, then double-click the Standard folder.

3. Under Open, check Copy, then click OK.

4. Add master shapes to the new stencil by dragging them from the drawing page or from another stencil. Rearrange master shapes on the stencils by dragging the icons into the order you want.

5. From the File Menu, choose Save As.

6. In the Save As box, locate the folder where you want to place the stencil, type a name, then click OK.
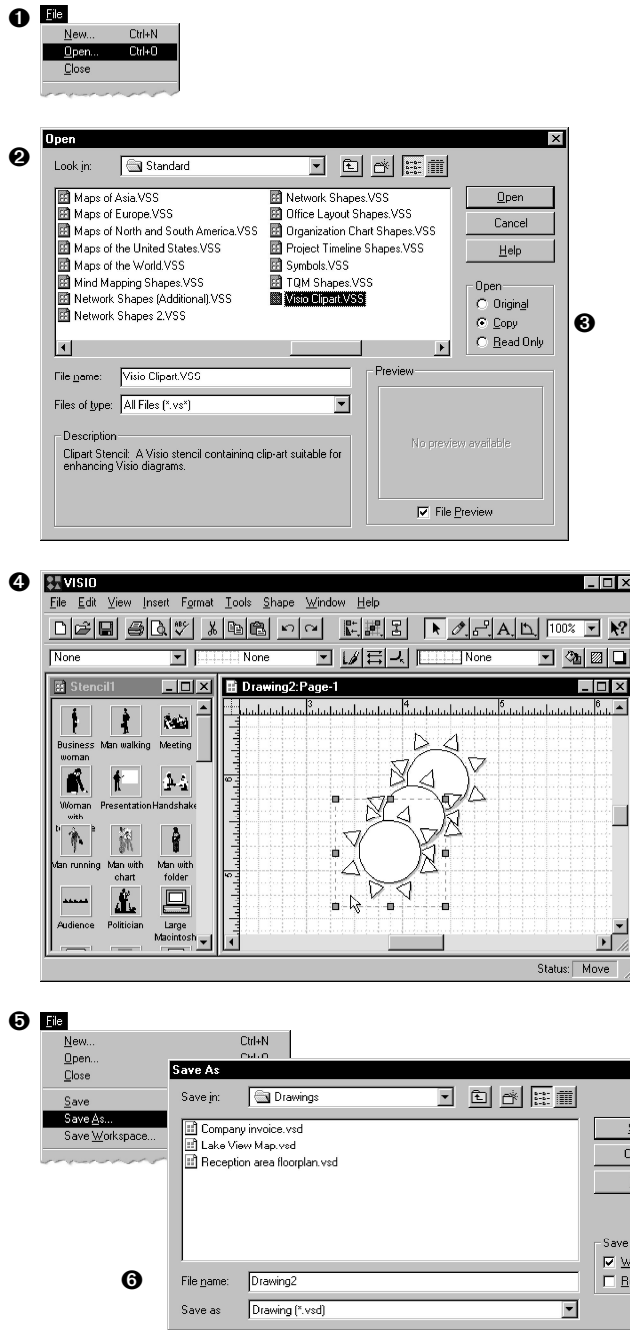
To create a new stencil:

1. From the File menu, choose New.

2. In the New box, under New, click Stencil.

3. Under Based On, choose No Stencil to create a blank stencil, or choose a stencil you want to base the new stencil on, then click OK.

4. From the File menu, choose Save As.

5. In the Save As box, locate the folder where you want to place the stencil, type a name for the stencil, then click OK.

6. To add a master shape to the new stencil, drag the shape from the drawing page or from another stencil.
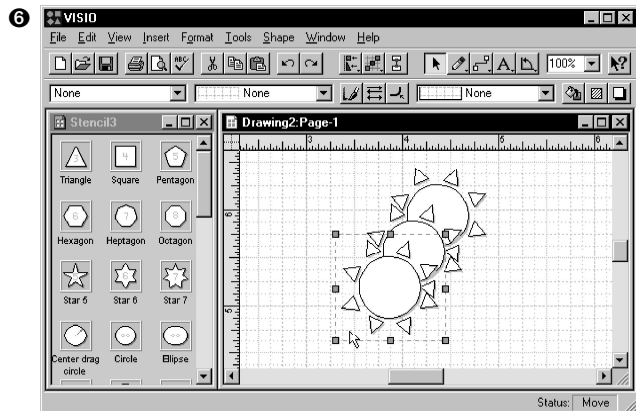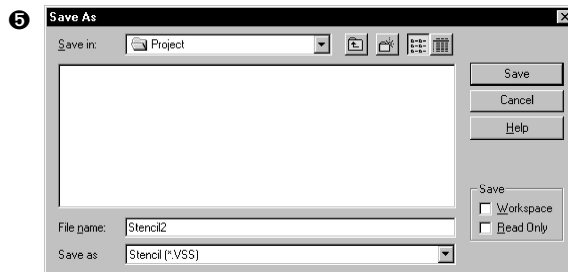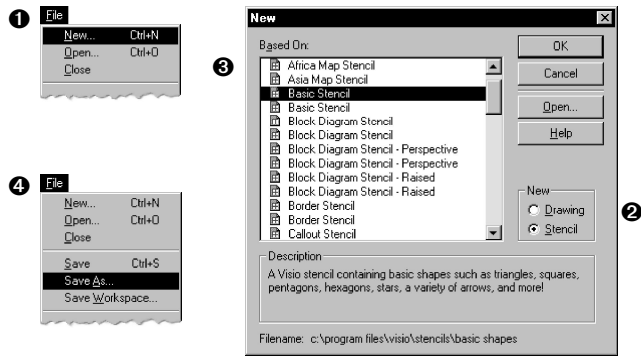
HANDLING MULTIPLE PAGES

Some drawings, such as large organization charts with many reporting levels, require multiple pages. When you open a Visio template to start a diagram, the diagram has only one drawing page. You can, however, add as many pages as you need.

For related information:

See Online Help: press F1, click Search, click Index, then type "pages."
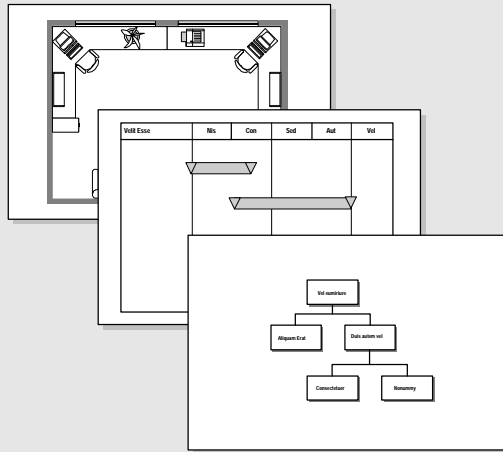
Once you have added your pages, you can move between, reorder, or delete them. You can also open two pages in different windows so you can move shapes from one to another or work on both at the same time.

To create a new page:

1. From the Insert menu, choose Page.

2. In the Page box, under Name, type a name if you want, then click OK. Unless you change them, the new page settings match the settings of the page displayed when you chose the Insert/ Page command.

Tip: To move from one page to another, click the Next Page and Previous Page toolbar buttons. If you don't see the buttons, maximize the Visio window, or choose Go To from the Edit menu, then choose the page you want.

❶ Insert
  Page...
  Field...
  Lotus Notes Field...
  Picture...
  Object...

❷ Page

Page Properties
Type: ● Foreground ○ Background
Name: Page-2
Background: None
Measurements: Millimeters

Shape Shadow Offset
Right: 3mm   Down: 3mm

Drawing Size/Scale
Size: Metric (ISO) (210mm x 297mm)
Scale: No Scale (1mm = 1mm)
Press "Size/Scale..." to change either setting.

☐ Open Page in New Window

OK
Cancel
Size/Scale...
Help
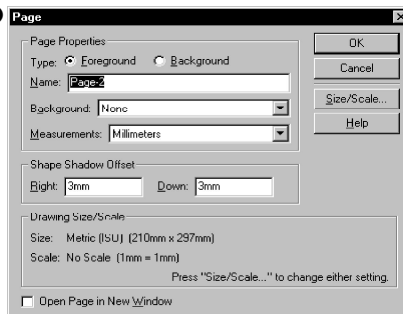
To reorder pages:

1. From the Edit menu, choose Drawing Page, then choose Reorder.

2. In the Reorder box, choose the page you want to move.

3. Click Move Up or Move Down until the pages are in the order you want, then click OK.

Tip: To delete a page, choose Drawing Page from the Edit menu, then choose Delete. In the Delete box, choose the page you want to delete, then click OK.
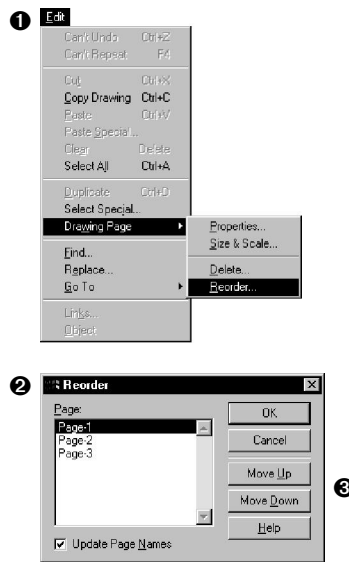
To display more than one page at a time:

1. From the Edit menu, choose Go To, then choose the first page you want to display.

2. From the Window menu, choose New Window. A new window opens displaying a copy of the first page.

3. From the Edit menu, choose Go To, then choose the second page you want to display.

4. From the Window menu, choose Tile to see both windows on the screen.
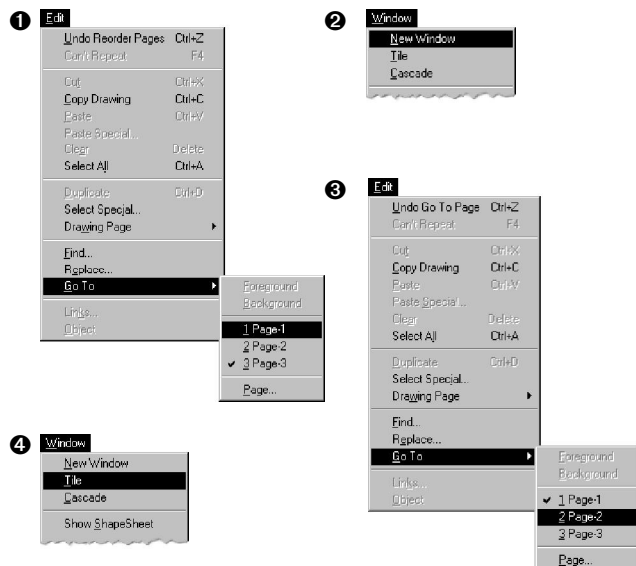
QUICKLY FORMATTING SHAPES

The fastest way to change a shape's appearance is to use Visio's toolbar buttons and toolbar text, line, or fill lists. For example, if you have a white rectangle with a 1-point black line and 10-point black Arial text, you can use the toolbar buttons and lists to change it to a blue rectangle with a 9-point red line and 12-point yellow Times text.

Once a text block or a shape looks the way you want, you can quickly copy its formatting to other shapes by using the Format Painter tool.

If you consistently apply several attributes to shapes you drag and drop or draw, you should create a style.

For related information:
Formatting Shapes with Styles 122

See Online Help: press F1, click Search, click Index, then type "formatting."

Buttons and lists on the main toolbar. The main toolbar is visible during most of your work in the drawing window.
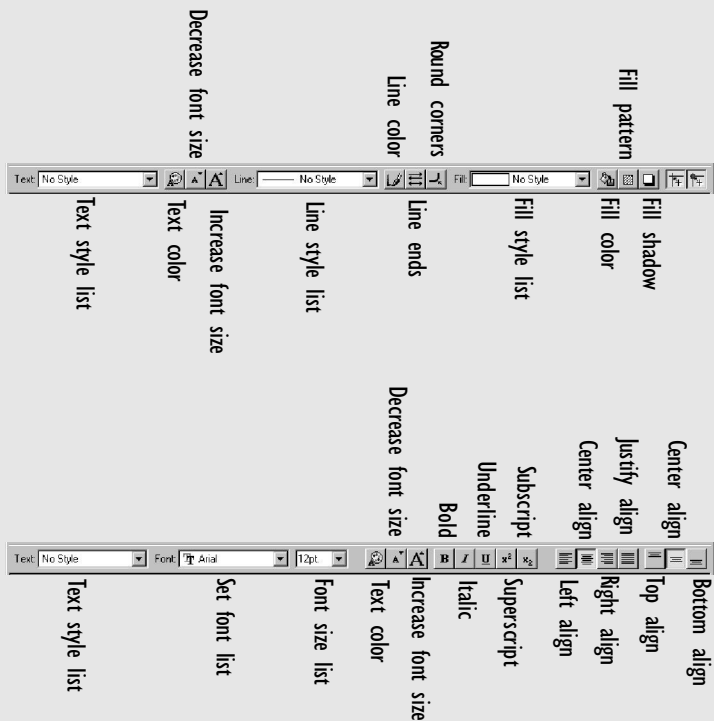
Buttons and lists on the text toolbar. The text toolbar is visible when you have text selected.

Format Painter tool
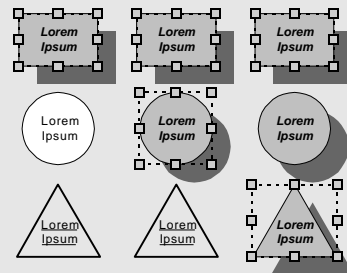
The Format Painter tool transfers the attributes of a selected shape to another shape.

To quickly format a shape or text:

1. Select the shape or text you want to format.

2. On the Visio toolbar, click the buttons for the formatting you want to apply, or choose options from the text, line, and style lists.

   The selected shape reflects your choices.

❶ ❷

| White fill |
| 10% Gray fill |
| 30% Gray fill |
| 50% Gray fill |
| 70% Gray fill |
| 90% Gray fill |
| Black fill |
| Blue dark fill |
| Blue fill |
| Connector |
| Cyan dark fill |
| Cyan fill |
| Gray fill |
| Green |
| Green |

| Hairline |
| 1pxl line |
| 3pxl line |
| 8pxl line |
| Connector |
| Hairline |
| Long dash... |
| No Style |
| None |
| Normal |
| Short dash |
| Text Only |

| No Style |
| Arial 8pt centered |
| Arial centered |
| Arial top |
| Arial top left |
| No Style |
| None |
| Normal |
| Text Only |
| Times centered |
| Times top |
| Times top left |

Copying formatting from one shape to others

To		Do this
Copy formatting from one shape to another	🖌	Select the shape with the formatting you want to copy. On the Visio toolbar click the Format Painter tool. Click the shape you want to copy formatting to.
Copy formatting from one shape to more than one other shape sequentially	🖌	Select the shape with the formatting you want to copy. Press the CTRL key, then, click the Format Painter tool on the Visio toolbar. Click the shapes you want to copy formatting to.
Copy formatting from one shape to several others simultaneously	🖌	Select the shape with the formatting you want to copy, then press Shift to select the shapes you want the formatting to copy to. On the Visio toolbar, click the Format Painter tool.
Copy only the text attributes from one shape to another	🖌	Double-click a shape to select the text with attributes you want to copy. On the Visio toolbar, click the Format Painter tool. Click the shape you want to copy the text formatting to.

FORMATTING SHAPES WITH STYLES

A style is a combination of attributes you can save with a template or drawing. When you apply a style, you apply all the attributes at once. Using a style not only makes it easy to format several shapes, it also guarantees that all the shapes will look exactly alike. If you decide to change an attribute (for example, change fill color from red to green), you can change the style. All the shapes you've applied the style to also change.

Most Visio templates come with some styles built in. For example, the Flowchart template includes the style Flow Normal. You can modify existing styles, create your own from scratch, and delete styles you no longer need.

Save styles you're likely to use again in a template. That way, when you open the template to create a new diagram, the styles will be available.

For related information, see online Help: press F1, click Search, click Index, then type "styles."

Apply one style (5-point line; 30% gray fill; 12-point, bold text) to three shapes to make them look the same.

Then change the style (5-point line; 70% gray fill; 10-point, white, bold text) to change the appearance of all three shapes.

To apply an existing style:

1. Select the text or shape you want to format.

2. Choose the style you want to apply from the Text, Line, and Fill Style lists at the top of the Visio window.

Tip: All existing styles appear in the Text, Line, and Fill Style lists. When you create a style, Visio automatically adds it to one or more lists.
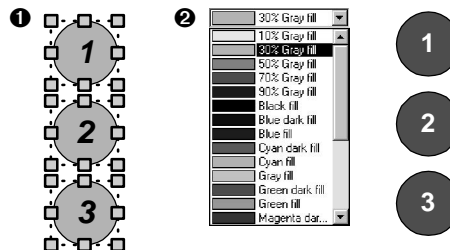
To create a new style:

1. From the Format menu, choose Define Styles.

2. In the Define Styles box, choose the options you want.

3. Apply the new style to the shapes you want to change.

Tip: You can delete or rename a style. In the Define Styles box, find the name of the style in the Style list that you want to delete or rename. Click Delete or Rename. If you're deleting, click OK. If you're renaming, in the Rename Styles box, type the new name, then click OK.
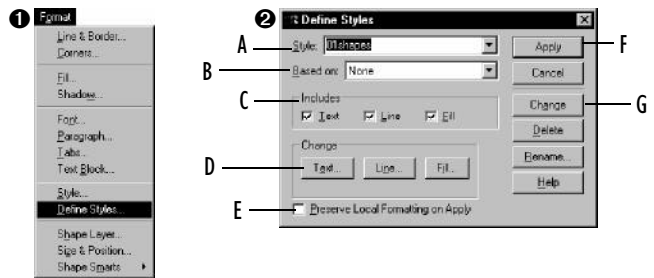
Define Styles Options

A   Type a name for the style.

B   To base a new style on an existing style, choose the existing one here.

C   If your style includes text, check Text. Repeat for Line and Fill.

D   To specify text formatting, click Text, then choose the characteristics you want. Repeat for Line and Fill.

E   Check here to preserve shapes' special formatting—italic text, for example—even after you apply the new style.

F   If shapes were selected when you chose Define Styles, this button says Apply. If no shapes were selected, it says OK.

G   Click to save a style and start creating another.

To save styles to a template:

1. Create the styles you want to save.

2. From the File menu, choose Save As.

3. In the Save As box, under Save As Type, choose Template (*.VST), then type the name of the template you want to save.

4. Under Save in, choose where you want to save the template, then click Save.
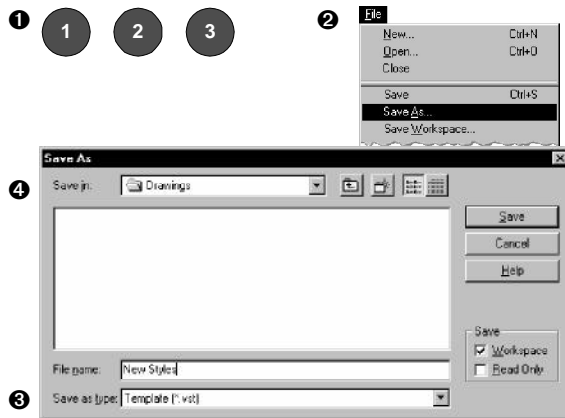
Directional Maps

For an overview of the best way to create a map, see "The Big Picture."

To create a map as quickly as possible, turn directly to "Creating a Directional Map."

For detailed information, see the In Depth topics in this and other chapters.

Topics in this chapter

THE BIG PICTURE

1 Open the
Map template.
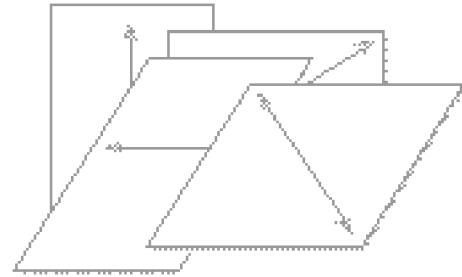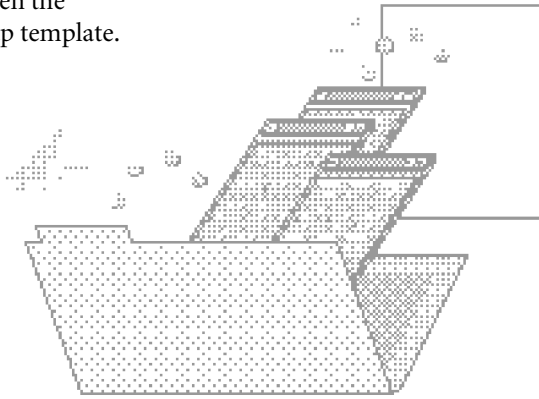
2 Set up the
drawing page.
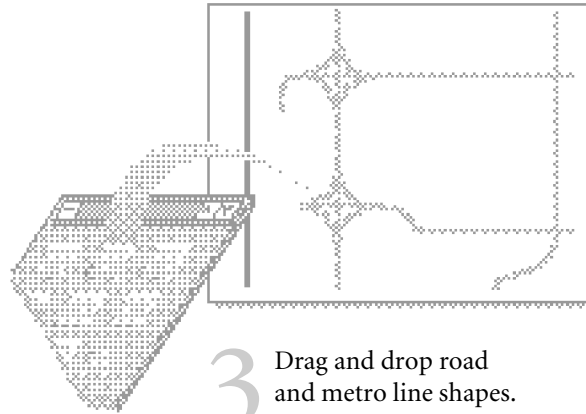
3 Drag and drop road
and metro line shapes.
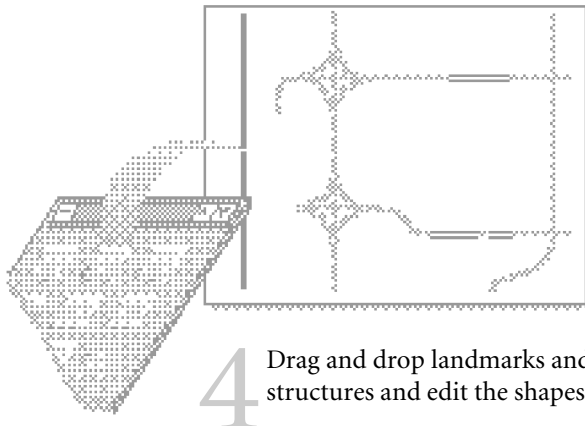
4 Drag and drop landmarks and
structures and edit the shapes.
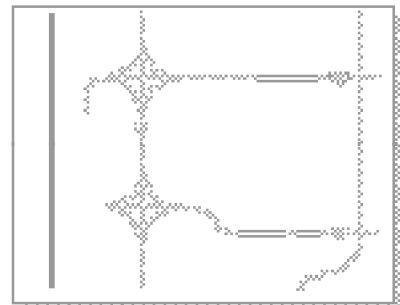
5 Label roads and other shapes.
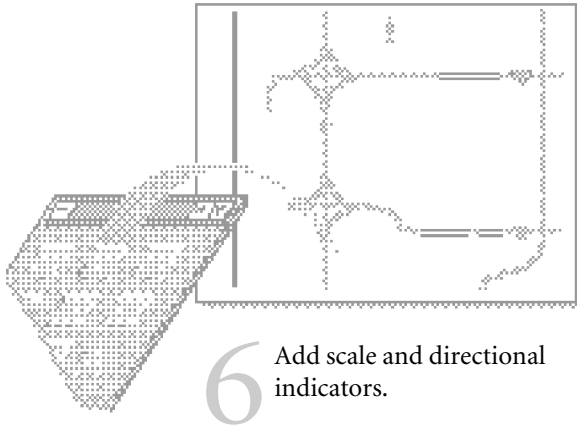
6 Add scale and directional indicators.
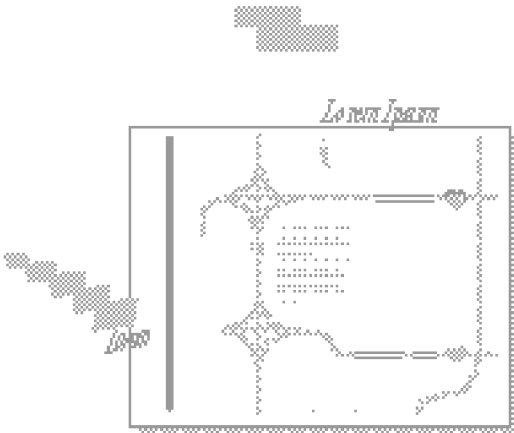
7 Add written directions.
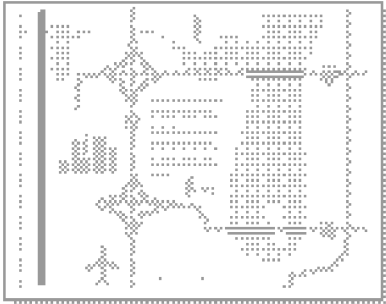
8 Refine the look of the map.
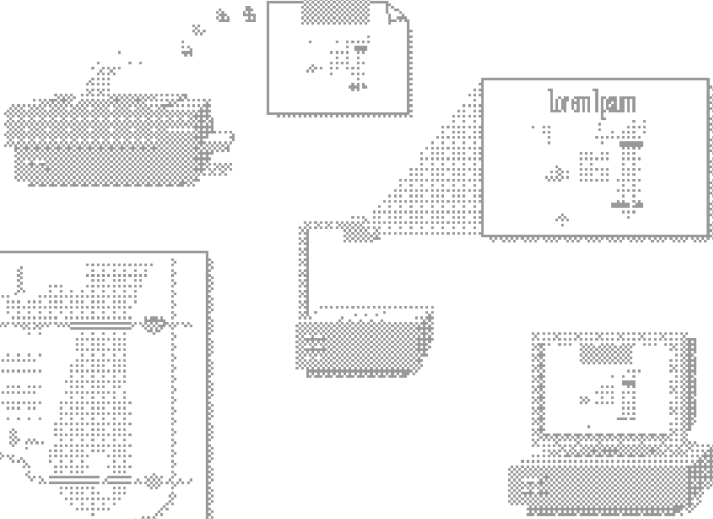
9 Save and produce.
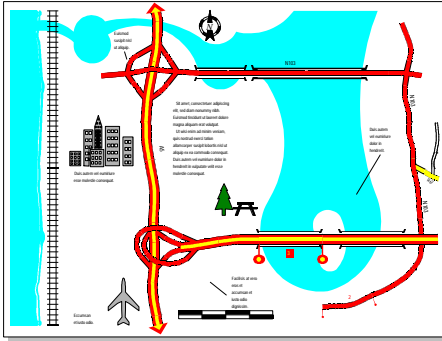
CREATING A DIRECTIONAL MAP

We've provided complete instructions for creating a map. To create your particular map, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

To open a map template:

1. Start Visio.

2. In the New box, under Based On, choose Map Template, then click OK.
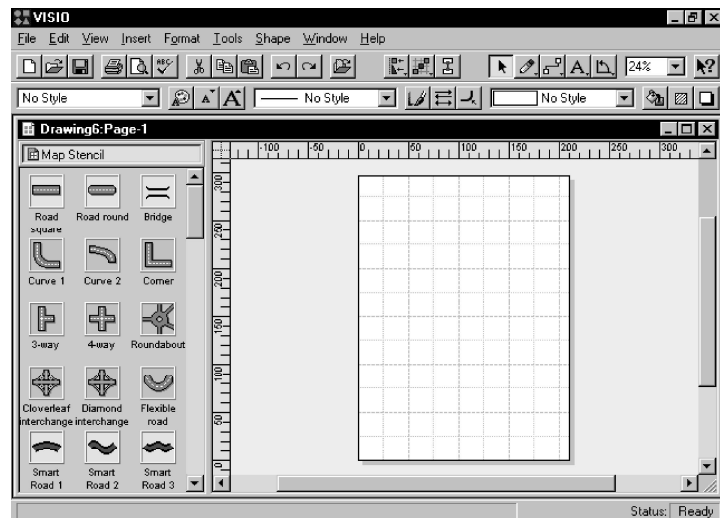
Visio opens a new file with a blank drawing page.

To set up the drawing page:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Drawing Size/Scale box, click Same As Printer or choose a standard or custom drawing page size. Leave the scale set as No Scale (1:1). Click OK.

For more details, see:

To add roads and metro lines:

1. Drag and drop road, metro line, or smart road shapes. To make black roads, use road shapes. To make colored roads, use metro line shapes. To make motorways, dual carriageways, primary or secondary routes, or narrow streets, use smart road shapes.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. Make longer roads and metro lines and create curves and intersections by gluing an endpoint from one shape to a connection point on another shape.

3. Use the flexible road and metro line shapes to create winding roads and hairpin turns.

4. Drag and drop Station and Transfer Station shapes to create metro line transfer stations. Right-click a transfer station shape and choose Shape Help from the shortcut menu for help in creating a metro transfer station.
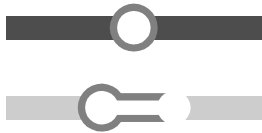
For more details, see:

To add landmarks:

1. Drag and drop shapes, such as buildings, parks, lakes, and trees, and position them along the roads and in other areas of the map.

2. Add stop signs, stop lights, and railroad crossings.

3. If necessary, draw your own landmarks.

To add scale and directional indicators:

1. Drag and drop the Scale shape and add numbers to indicate the map's approximate scale (the scale is set at 1:1, so the map is not actually a scaled drawing). You can also use the Graph Scale shape from the Chart stencil.

2. Drag and drop the Direction or North shape and rotate it, if necessary, to point north.

To add written directions:

1. From the toolbar, choose the text tool.

2. With the crossbar, point to where you want the written directions to start, then drag a box about the size you think the directions will be.

3. Type the directions.

4. From the Format menu, choose Font.

5. In the Font box, choose the font, size, color, and style for the text.

6. From the toolbar, choose the pointer tool, then click the text block to select it.

7. Drag a selection handle to change the text block width or height.

8. Position the pointer over the text block. When the pointer turns white, drag the text block to where you want it to appear on the page.

To label roads and other shapes:

Lorem
Ipsum
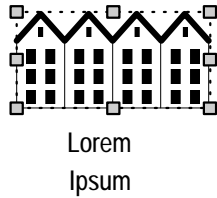
1. Select the shape you want to label.

2. Type the text. Visio zooms in on the selected shape as you type.

3. Press the ESC key or click outside the shape to return to the original magnification.

Refine the look of the directional map

Motorway
Dual Carriageway
Primary Route
Secondary Route
Narrow Road/Street

Show Align

Cut
Copy
Duplicate

View
Format
Shape

Shape Help

Road Properties

To change the type of road a smart road shape represents:

1. Right-click the smart road shape you want to change, then choose the type of road you want from the shortcut menu.

To change the relative width for all road and metro shapes at once:

1. Click the page where there are no shapes.

2. Right-click, and from the shortcut menu choose Road Properties.

3. In the Custom Properties box, type the width for a thin road. Standard and thick road widths are multiples of this number.

To change the relative width for all smart road shapes at once:

1. Click the page where there are no shapes.

2. Right-click, and from the shortcut menu choose Road Properties.

3. In the Custom Properties box, choose a width for each type of road.

```
Thin Road
Standard Road
Thick Road
Custom

Cut
Copy
Duplicate

View          ▶
Format        ▶
Shape         ▶

Shape Help
```

To change the width of one road or metro shape:

1. Right-click the road, then choose the width you want from the shortcut menu.

To change the width of one smart road shape:

1. Right-click the road, then choose Road Properties from the shortcut menu.

2. In the Custom Properties box, type the road width you want, then click OK.

To change the curves of a flexible road shape:

1. From the drawing tool menu on the toolbar, choose the freeform tool.

2. Select the flexible road you want to change.

3. Place the freeform tool over a control point on the curve and drag until the curve looks the way you want.

To extend a flexible road shape:

1. From the drawing tool menu on the toolbar, choose the freeform tool.

2. Place the crosshairs over a flexible road shape endpoint, then draw a curving road.

To change the way text looks:

1. Select the shape with text or the text block you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

For more details, see:

Save and produce a directional map

To name and save a completed map:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the map, choose the other options you want, then click Save.

To print a map:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the map in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your map file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

MERGING SHAPES

Sometimes the easiest way to create an unusual or complex shape is to draw simple shapes, then merge them.

In Visio, you can merge shapes using several different operations:

- Union
- Combine
- Subtract
- Intersect
- Fragment

The merge operations apply to two-dimensional, closed, filled shapes. (The Fragment command also works on lines and curves.)

New shapes created when you merge separate shapes inherit their formatting from the shape you select first. For example, if you select a magenta square first and then merge it with a white circle, the merged shape has a magenta fill. In all the illustrations on this page, the darker shape was selected first.

For related information, see online Help: press F1, click Search, click Find, then type "joining."
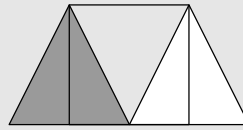
Union
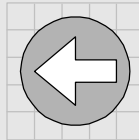
Combine
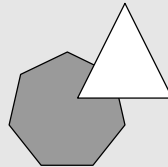
Subtract

Intersect
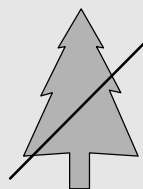
Fragment
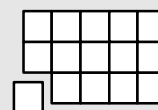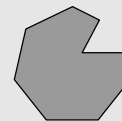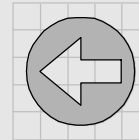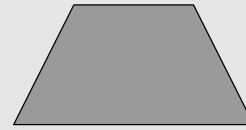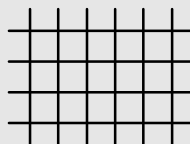
To merge shapes:

1. Select the shapes you want to merge.

2. From the Shape menu, choose Operations, then choose the kind of merging operation you want.

❶

❷ Shape
  Size & Position...
  Custom Properties...

  Bring Forward
  Bring to Front   Ctrl+F
  Send Backward
  Send to Back   Ctrl+B

  Rotate Left   Ctrl+L
  Rotate Right   Ctrl+R
  Flip Vertical   Ctrl+J
  Flip Horizontal   Ctrl+H
  Reverse Ends

  Edit Text   F2

  Grouping   ▶
  Operations   ▶   Union
  Actions   Combine
                          Fragment
                          Intersect
                          Subtract
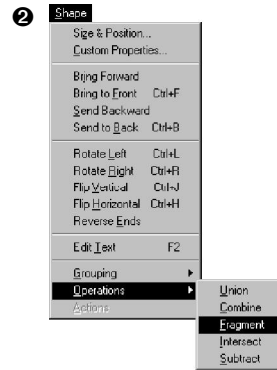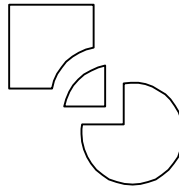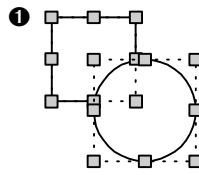
EDITING SHAPES

Visio shapes are flexible. You can change the angle at which two sides of a shape meet, add and delete line and arc segments, and change several aspects of arcs. You can also alter the way lines and arcs curve.

Editing some Visio shapes would interfere with their function, so these shapes are protected. For example, you can't edit segments on the chair shape from the Office Layout template since editing the shape would destroy the proportions of the chair.

For related information:

See online Help: press F1, click Search, click Index, then type "segments."

Vertex

Control point

Control point

Control point

To edit shape segments, select the shape with the pencil tool, then add, select, and drag shape vertexes and control points. Selected vertexes and control points turn magenta.

Use the pencil tool to change the curvature of a segment.
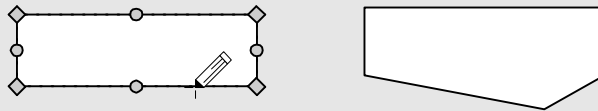
Add a segment to a shape by adding a vertex. Drag the new vertex to change the way the shape looks.

Delete vertex A

A

B

C
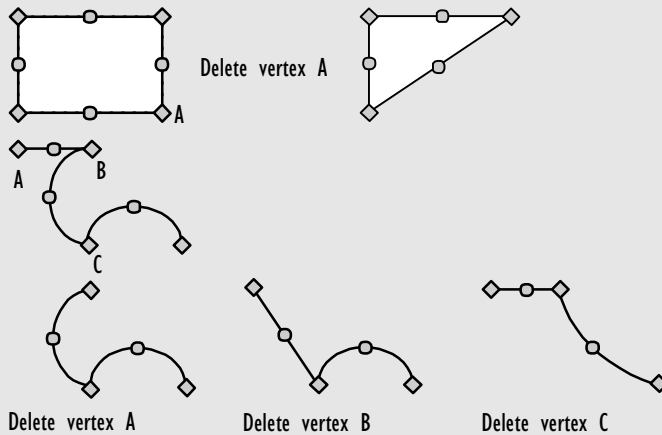
Delete vertex A

Delete vertex B

Delete vertex C

Delete a segment by deleting a vertex associated with it.
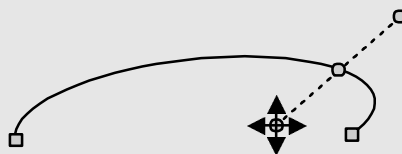
Change the symmetry of an arc by dragging the handles associated with its control point.

How to edit shapes

To	Select the shape and use the pencil tool to
Select a vertex	Click the vertex you want to select. The vertex turns magenta.
Move shape vertexes	Select one or more vertexes and drag. Hold down the Shift key to select more than one.
Add a vertex	Point to where you want to add a vertex, hold down the CTRL key and click.
Delete a segment	Select a vertex associated with the segment you want to delete, then press the Delete key.
Change the curvature of an arc or freeform curve	Drag a control point until the segment looks the way you want.
Change the symmetry of an arc	Select a control point, then hold down the CTRL key and drag the pointer slightly away from the point to display two handles. Drag one handle farther or closer to the control point or rotate it around the control point until the arc is aligned the way you want.
Move the end of a freeform curve	Select the curve, then drag a handle associated with the curve's endpoint.
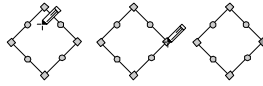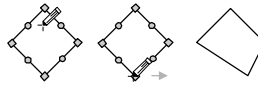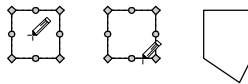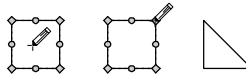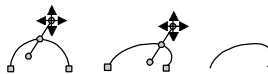
DRAWING YOUR OWN SHAPES

Visio provides six drawing tools you can use to draw freeform curves, arcs, straight lines, rectangular and elliptical shapes, and more.

Visio's pencil tool is smart. Because it anticipates what you're drawing, you can use it to draw either straight lines or arcs. (You can also draw arcs with the arc tool, but each arc you draw is a quarter ellipse.)

The freeform tool works like a pencil on paper. Use it to draw freeform curves.

Tip: To draw smoother freeform curves, turn snapping off before you draw. From the Tools menu, choose Snap and Glue, then, under Currently Active, uncheck Snap.

For related information:
Editing Shapes 136

See online Help: press F1, click Search, click Index, then type "arcs," "lines," "freeform," "rectangles," or "ellipses."

Pencil tool
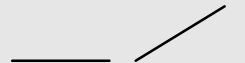
Line tool

Arc tool

Freeform tool

Rectangle tool

Ellipse tool

To draw a straight or curved line:

1. From the drawing tool menu, select the pencil or line tool to draw a straight line, the pencil or arc tool to draw an arc, or the freeform tool to draw a freeform curve.

2. Point to where you want the line to start.

3. Drag in a straight or curving motion until the line is the length you want.

Tip: When you draw an arc with the pencil tool, holding down the Shift key constrains the arc to a quarter of a circle.

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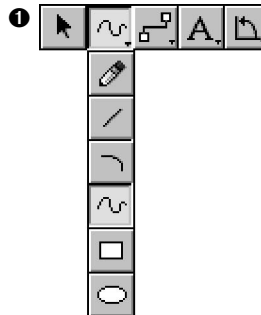
To draw a rectangle or ellipse:

1. From the drawing tool menu, select the rectangle or ellipse tool.

2. Point to where you want the shape to start.

3. Drag until the shape is the size you want.

Tip: To draw a perfect square or circle, hold down the Shift key before you drag.
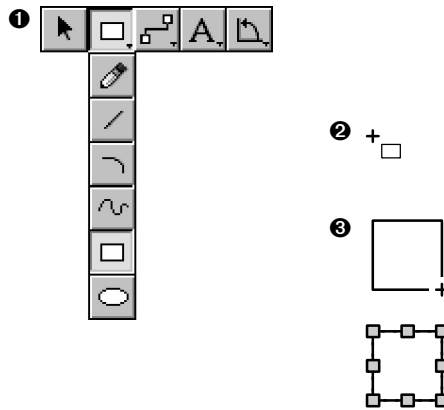
To draw a shape with several segments:

1. From the drawing tool menu, select the tool you want to use.

2. Point to where you want the shape to start.

3. Drag to create the first segment.

4. Release the mouse button.

5. To draw the next segment, select the tool you want to use, point to either endpoint of the first segment, and then drag. When you finish, release the mouse button.

6. Repeat step 5 until all the segments are drawn.

Tip: To close a shape with several segments, drag its beginning point to its endpoint and release the mouse button.
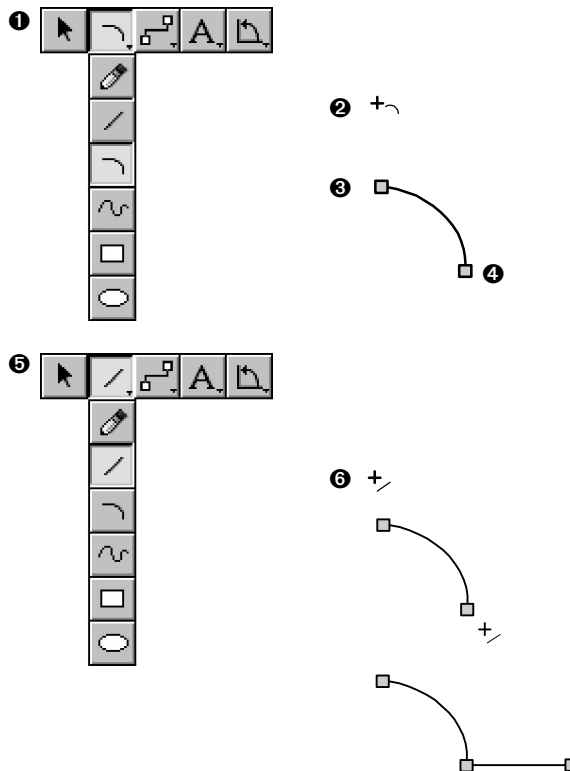
ROTATING SHAPES

Using Visio's tools, you can easily flip, reverse, or rotate shapes to face any direction or angle you want.

As you rotate shapes, information on the status bar at the bottom of the Visio window displays the exact angle of rotation.

For related information, see online Help: press F1, click Search, click Index, then type "rotating."
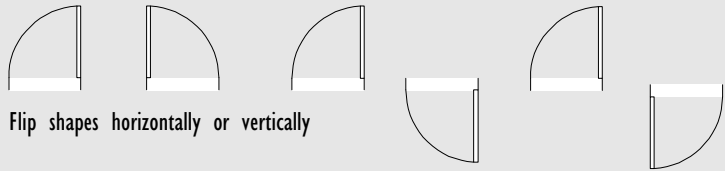
Flip shapes horizontally or vertically

Reverse to flip shapes both vertically and horizontally
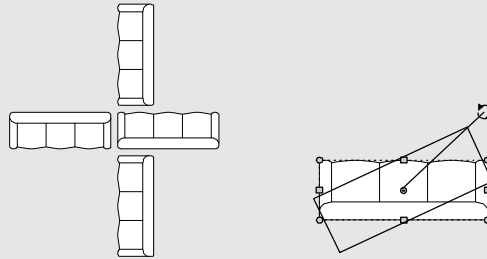
Rotate a shape in 90 degree increments or to any angle of rotation.

Rotating anatomy

Rotate shapes using the rotation tool and commands on the Shape menu.
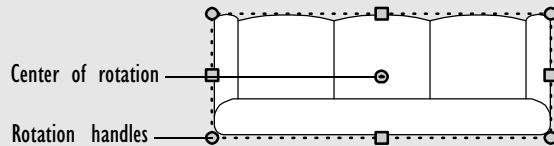
Center of rotation

Rotation handles

When you select a shape with the rotation tool, rotation handles appear in the corners.
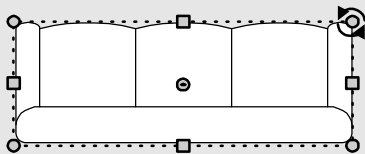
When you place the pointer over a rotation handle, it changes to two arrows in a circle.
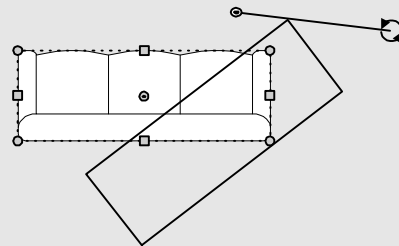
You can rotate a shape around any point by moving its center of rotation.

How to rotate shapes

To	Use this tool	Take these steps
Rotate a shape by 90 degrees		Select the shape. From the Shape menu, choose Rotate Left to rotate the shape counterclockwise or Rotate Right to rotate the shape clockwise.
Rotate a shape by any amount		Select the shape. Click the rotation tool on the toolbar. Drag a rotation handle. For greater control, drag the pointer farther from the center of rotation.
Move a shape's center of rotation		Select the shape. Click the rotation tool on the toolbar. Drag the center of rotation to its new location.
Flip or reverse a shape		Select the shape. From the Shape menu, choose Flip Vertical, Flip Horizontal, or Reverse Ends.

To create a road network map:

1. Drag and drop a geographic shape and Main Cities shape on the page.

2. Select all the shapes.

3. Right-click one shape, then choose Arrange to Page from the shortcut menu. The cities will take their appropriate places on the geographic shape.

4. Select the Main Cities shape, choose Grouping from the Shape menu, then choose Ungroup.

5. Drag and drop smart road shapes from the Map stencil to create a road network connecting the cities.

Tip: To create smooth connections between road shapes, right-click a smart road shape, then choose Show Align. A control handle appears just above the end of the shape. Glue the control handle to the corresponding connection point on an adjoining road shape.

CREATING GEOGRAPHIC REGIONS

Visio provides a number of stencils that include geographical shapes. For example, the Africa stencil includes shapes for each of the African countries.

All the geographical shapes are approximately the same size, so shapes for very small areas are visible when you first drag and drop them and shapes for very large areas are not too large to fit on a page.

Using Visio's region builder, you can combine selected shapes into appropriately-sized geographic regions. You can also build regions based on the relative size and shape of a particular country.
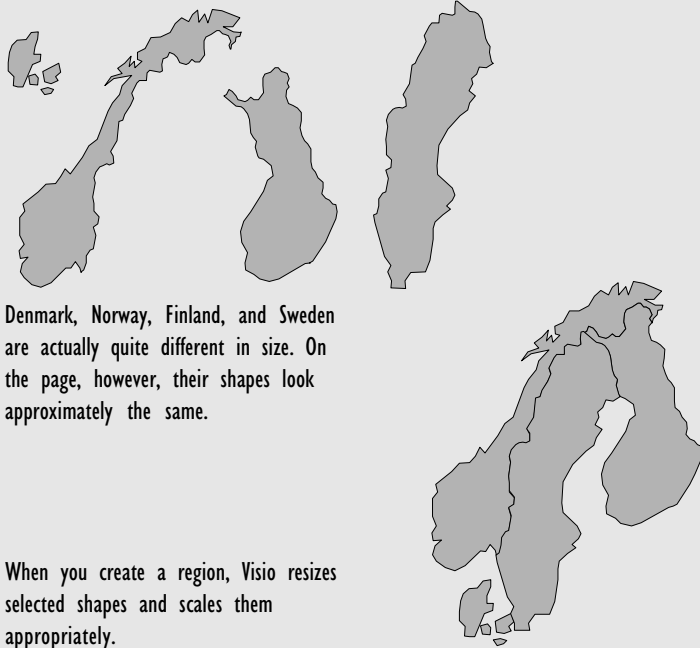
Denmark, Norway, Finland, and Sweden are actually quite different in size. On the page, however, their shapes look approximately the same.

When you create a region, Visio resizes selected shapes and scales them appropriately.

To create a geographic region:

1. Drag and drop the geographic shapes you want to include.

2. From the Edit menu, choose Select All.

3. Right-click one shape and from the shortcut menu, choose Arrange To Page.

Tip: You can also change the way a geographic shape looks, then create a region in which all the shapes arrange themselves relative to the shape you changed. Drag and drop the shapes, select them, then choose Arrange To Shape from the right-click shortcut menu. When prompted, select the shape you want to change, change it, then click OK.

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Edit

Undo Ungroup	Ctrl+Z
Repeat Ungroup	F4
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Paste Special...	
Clear	Delete
Select All	Ctrl+A
Duplicate	Ctrl+D
Select Special...	
Drawing Page	▶
Find...	
Replace...	
Go To	▶
Links...	
Object	

❸

Arrange To Page
Arrange To Shape...
Cut
Copy
Duplicate
View ▶
Format ▶
Shape ▶
Shape Help
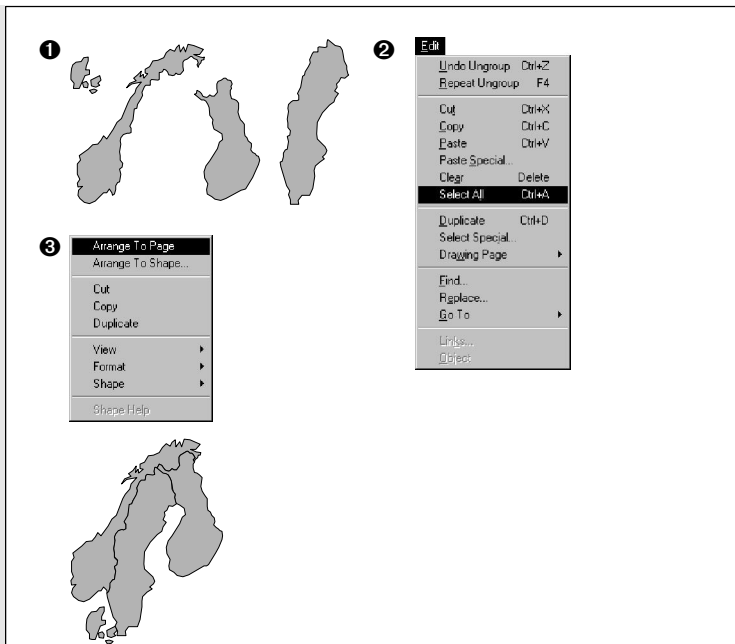
Forms

For an overview of the best way to draw a form, see "The Big Picture."

To create a form from scratch as quickly as possible, turn directly to "Creating an Invoice." (While this process refers to creating an invoice, the same steps apply to any type of form you're creating.) If you want to base your form on one of the form shapes provided on the stencil (fax cover sheet, business card), use the procedure "Customizing a Fax Cover Sheet" as an example of how to customize an existing form.

For detailed information, see the In Depth topics in this and other chapters.

Topics in this chapter

THE BIG PICTURE
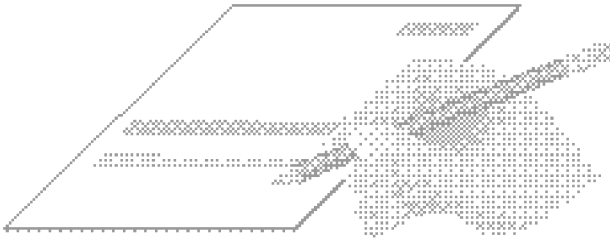
1 Using existing data or
procedures, plan the layout
of the form.
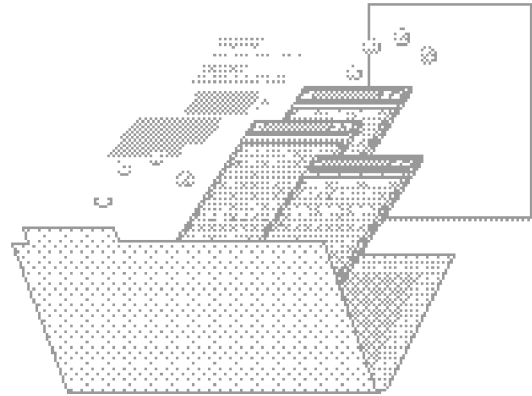
2 Open the Forms Template.
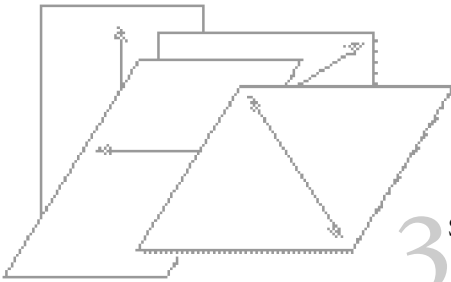
3 Set up the drawing page.

4 Add the framework for the
form you want to draw.
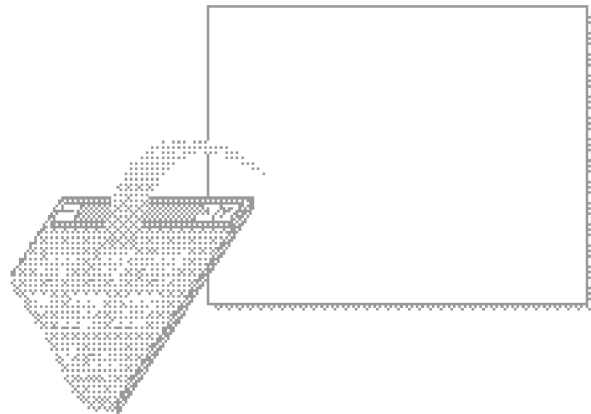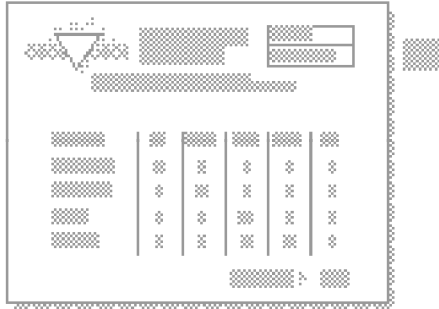
5 Add content to the form.

6 Refine the look of the form.
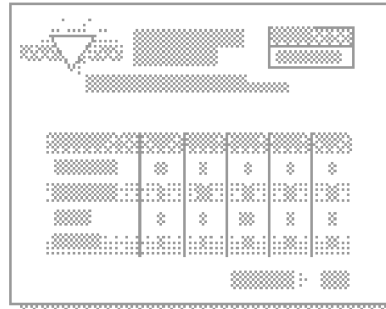
7 Save and produce.
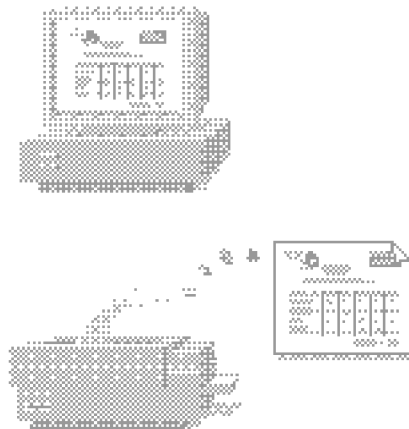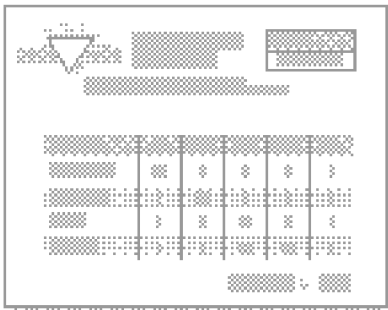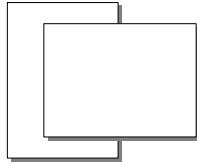
CREATING AN INVOICE

We've provided complete instructions for creating an invoice. To create your particular form, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

To open the Forms template:

1. Start Visio.

2. In the New box, under Based On, choose Forms Template, then click OK.

To set up the drawing page:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Size/Scale box, click Same As Printer or choose a standard or custom drawing page size, then click OK.

For more details, see:

To add the form framework:
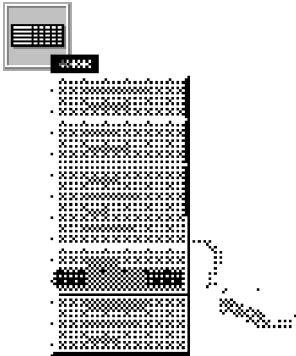
1. Drag and drop column, line, box, and grid shapes to create the spaces you want.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. Drag selection handles to make columns, lines, boxes, and grids the size you want.

3. Duplicate lines and boxes to create repeating elements on the form.

4. Drag a border shape for the form onto the drawing page, and size the border to the size you want the form.

5. Choose a magnification from the Zoom Control list on the toolbar to zoom in and align parts of the form framework with one another and with the border.

For more details, see:

Add content to the form

To title the form:

1. Drag an 8-, 10-, or 18-point text block shape to where you want the upper-left corner of the title.

2. Select the text block and type the text you want. As you type, the shape expands to accommodate the text.

3. Drag a selection handle to change the text block size.

To add text to rows and columns:

1. Drag an 8-, 10-, or 18-point text block over a row. You can't change a text block's height so choose a block that fits vertically within the grid lines. Drag a selection handle horizontally until the text block is the length of the row.

2. Select the text block, then choose Tabs from the Format menu.

3. In the Tabs box, set tabs to correspond to where you want text to align in the columns.

4. With the text block selected, type the text you want.

To emphasize certain rows, columns, or locations:

1. Drag and drop arrow and callout shapes onto the form.

2. Select the shapes, then type the text you want.

For more details, see:

Refine the look of the form

To change the appearance of lines, boxes, columns, and grids:
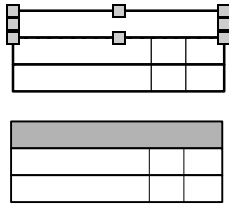
1. Select the shape you want to change.

2. From the Format menu, choose Line. In the Line box, choose the options you want, then click OK.

3. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

To add a colored background to boxes, columns, rows, or a grid:
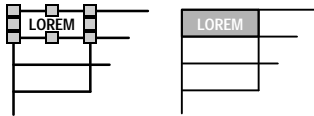
1. From the drawing tool menu on the toolbar, choose the rectangle tool.

2. Draw a rectangle the size of the box, column, row, or grid to which you want to add a background.

3. From the Format menu, choose Fill.

4. In the Fill box, under Fill/Foreground, choose the background color you want, then click OK.

5. From the Shape menu, choose Send To Back, to put the background rectangle behind the text in the box, column, row, or grid.

To change the appearance of text:

1. Select the text block you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

To add graphics to a form:

1. Copy and paste, import, embed, or link the graphics you want to add.

For more details, see:

Save and produce the form

To name and save the completed form:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the form, choose the other options you want, then click Save.

To print your form:

1. Choose Print from the File menu.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the form in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram.

2. From the Edit menu, choose Copy.

3. In the destination document, choose Paste (or the equivalent) from that program's Edit menu.

To link your form file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

Consectetuer Adipiscion

44 31 555 5656 VEL Vel 8 Facilisis at Vero
44 31 555 5659 VEX Vex Dignissim Quis WC 2E8 PS

F A X

Et: Duis:
Lobortis: Veniam:
Fax Minim: Fax Minim:
Dolor Minims: Phone Minims:

CUSTOMIZING A FAX COVER SHEET

The Forms template includes a shape called Fax Cover. Drag and drop the shape to create a complete fax cover sheet you can customize for your organization.

For the cover sheet you want to draw, you may not need to complete each of the following steps.

To open the Forms template:

1. Start Visio.

2. In the New box, under Based On, choose Forms Template, then click OK.

To set up the drawing page:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Size/Scale box, click Same As Printer or choose a standard or custom drawing page size, then click OK until you return to the drawing page.

For more details, see:

To put a fax cover sheet on the drawing page:
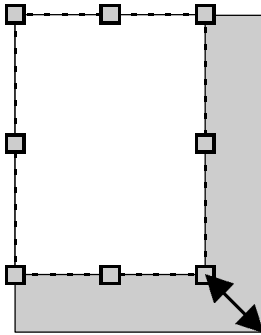
1. Drag and drop the Fax Cover shape.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. Drag a selection handle to make the cover sheet the size you want.

To customize cover sheet text:

1. Select the cover sheet, then click to subselect the text you want to customize to subselect it. The subselected area is surrounded by gray selection handles. (You can't edit the big word "fax.")

2. Choose the text tool, select the text you want to replace, then type the new text.
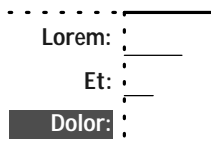
3. From the Format menu, choose Font. In the Font box, choose the options you want.

4. From the Format menu, choose Paragraph. In the Paragraph box, choose the options you want.

For more details, see:

To delete the word "fax:"

1. Select the cover sheet, then click the word "fax" to subselect it. The subselected area is surrounded by gray selection handles.

2. From the Shape menu, choose Grouping, then choose Remove From Group. The gray selection handles turn green.

3. Press the Delete key.

To customize cover sheet lines:
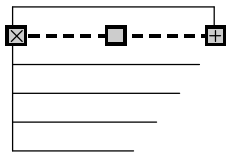
1. Select the cover sheet, then click the line you want to customize to subselect it. The subselected area is surrounded by gray selection handles.

2. From the Format menu, choose Line. In the Line box, choose the options you want.

For more details, see:
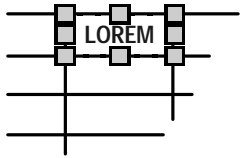
To add additional text:

1. Drag an 8-point, 10-point, or 18-point text block shape to where you want the upper-left corner of the text.

2. Select the text block and type the text you want. As you type, the shape expands to accommodate the text.

3. Drag a selection handle to change the text block size. If you want to change font size, choose Font from the Format menu. In the Font box, choose a font size, then click OK.

For more details, see:

Save and produce the cover sheet

To name and save the completed cover sheet:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the cover sheet, choose the other options you want, then click Save.

To print the cover sheet:

1. Choose Print from the File menu.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the cover sheet in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram.

2. From the Edit menu, choose Copy.

3. In the destination document, choose Paste (or the equivalent) from that program's Edit menu.

To link your cover sheet file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

SETTING TABS

Use tabs to line text up in table form or to create bulleted lists. An individual text block can have up to ten tab stops.

Tab positions reflect distances from where the text block begins, not the distance from the edge of the page. Make setting tabs easier by moving the zero point to the edge of the text block before you choose tab positions.

For related information:

See Online Help: press F1, click Search, click Index, then type "tabs."

29.95	29.95	29.95	29.95
4.630	4.630	4.630	4.630
134.29	134.29	134.29	134.29
.250	.250	.250	.250

In Visio, tabs can be left-, center-, and right-aligned. Use decimal tabs to align columns of numbers.

- Lorem Ipsum dolor sit amet
- Consectetuer adipiscing elit
- Sed diam nonummy nibh euismod Tincidunt ut laorett dolore magna
- Aliquam erat volutpat Ut wisi enim ad nimim

Using tabs in combination with paragraph indent settings, you can create bulleted lists with hanging indents.

| Lorem | 01 | 31 | 22 |
| Ipsum | 22 | 03 | 09 |

Select a text block to set tabs for the whole paragraph at once.

Duis autem vel:
Eros   Dolor   Odio

Select a sentence to set tabs for part of a text block.

Tab Anatomy

Tabs Box

A Type the distance from the edge of the text block where you want the tab.

B Choose the tab alignment you want.

C Click to delete the tab stop selected in the Tab Stops list.

D Click to add a tab setting to the Tab Stops list.

E Click to open the Font box if you want to change the way selected text looks.

F Click to apply the tab settings to selected text and leave the Tabs box open.

G Click to apply the tab settings and close the Tabs box.

H Lists the tabs set for selected text.
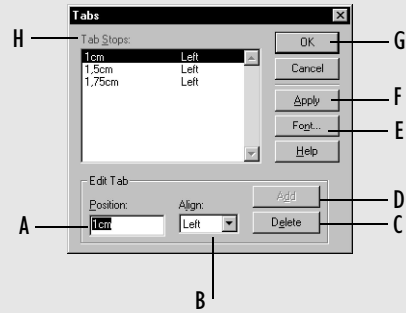
Making bullets
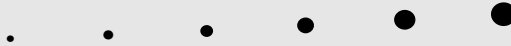
To make a standard bullet in Visio, type CTRL + Shift + 8. Select the bullet and use the Font Size list on the toolbar to change its size.

More ➤

To create a bulleted list:

1. Choose the text tool and draw a text block or select an existing text block or shape.

2. From the Format menu, choose Paragraph.

3. In the Paragraph box, under Horizontal Alignment, choose Left.

4. Under Indents, for From Left, type 5mm, or any setting that will leave enough room for a bullet and blank space.

5. For First Line, type -5mm, or the negative of whatever setting you chose in step 4, then click OK.

6. From the Format menu, choose Tabs.

7. In the Tabs box, under Position, type 5mm, or whatever indent setting you chose in the Paragraph box, click Add, then click OK.

8. Type a bullet, press Tab, then type text to create a bulleted list.
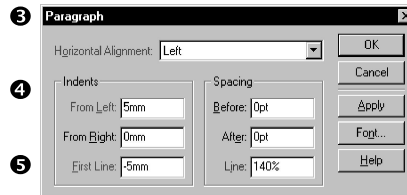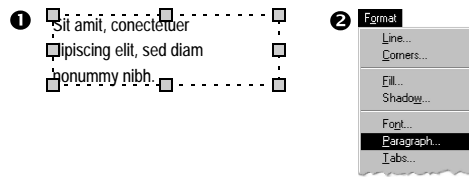
❶ Sit amit, conectetuer
ipiscing elit, sed diam
nonummy nibh.

❷ Format
Line...
Corners...
Fill...
Shadow...
Font...
Paragraph...
Tabs...

❸ **Paragraph**
Horizontal Alignment: Left
OK
Cancel
❹ Indents
From Left: 5mm
From Right: 0mm
❺ First Line: -5mm
Spacing
Before: 0pt
After: 0pt
Line: 140%
Apply
Font...
Help

❻ Format
Line...
Corners...
Fill...
Shadow...
Font...
Paragraph...
Tabs...
Text Block...

Tabs
Tab Stops:
5mm   Left
OK
Cancel
Apply
Font...
Help
Edit Tab
❼ Position: Align:
5mm   Left
Add
Delete

❽ • Sit amet, consectetuer adipiscing elit, sed diam nonummy nibh.
• Sit amet, consectetuer adipiscing elit, sed diam nonummy nibh.
• Sit amet, consectetuer adipiscing elit, sed diam nonummy nibh.

To set tabs for table text:

1. Choose the text tool and draw a text block or select an existing text block.

2. From the Format menu, choose Paragraph.

3. In the Paragraph box, set Horizontal Alignment to Left and Indents to zero, then click OK.

4. Hold down the CTRL key and drag the crossbar to move the zero point to the left edge of the text block.

5. From the Format menu, choose Tabs.

6. In the Tabs box, enter the tab positions and alignments you want, then click OK.

❶ Lorem 01 31 22
Ipsum 22 03 09

❷ **Format**
Line...
Corners...
Fill...
Shadow...
Font...
Paragraph...
Tabs...
Text Block...
Style...
Define Styles...
Layer...
Protection...
Double-Click...
Behavior...
Special...

❸ **Paragraph**
Horizontal Alignment: Left
Indents
From Left: 5mm
From Right: 0mm
First Line: -5mm
Spacing
Before: 0pt
After: 0pt
Line: 140%
OK
Cancel
Apply
Font...
Help

❹ 0
0
Lorem 01 31 22
Ipsum 22 03 09

❺ **Format**
Line...
Corners...
Fill...
Shadow...
Font...
Paragraph...
Tabs...
Text Block...
Style...
Define Styles...
Layer...
Protection...
Double-Click...
Behavior...
Special...

❻ **Tabs**
Tab Stops:
5mm   Left
OK
Cancel
Apply
Font...
Help
Edit Tab
Position: 5mm
Align: Left
Add
Delete

Lorem 01 31 22
Ipsum 22 03 09

Visio can automatically correct spelling or find and replace all uses of particular words. You can specify whether you want Visio to search a selection, a page, or the whole diagram.

When Visio searches for or checks text, it examines text in shapes, in independent text blocks, on stencils, in the Properties box, and in data fields.

If you frequently use words that aren't in the dictionary (for example, the word Visio), you can create a user dictionary that includes these words. Then, when Visio checks your spelling, it won't highlight the words. You can even create different user dictionaries for different purposes.

Find and Replace Options

A   Type the search string you want to find or replace.

B   Type the text you want to replace the search string with.

C   Click to search for a special character such as a Tab or Manual Return.

D   Click to search selected text, the current page, or all pages.

E   Check to locate only words that match the case of the search string.

F   Check to locate only whole words that match the search string.

G   Click to replace all occurrences of a search string.

H   Click Find Next to find the next occurrence of the search string, then click Replace to replace the selected text.
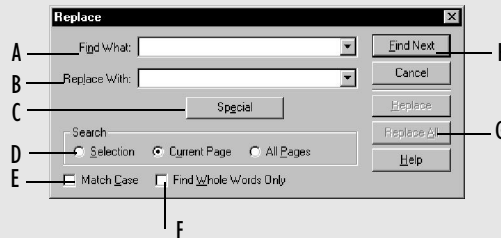
Spell Checking Options

A   Displays words not found in the dictionary.

B   Displays an alternative to the word in A. You can also type your own alternative.

C   Displays a list of suggested alternatives. Click an alternative to display it in B.

D   Choose the user dictionary to which you want to add a word.

E   Click to add the word in A to the user dictionary you chose in D.

F   Click to choose what text to search and to add or remove a user dictionary. (see Spelling Options below).

G   Click to change all occurrences of a word in A to the word in B.

H   Click to ignore future occurrences of the word in A.

I   Click to change the word in A to the word in B.

J   Click to leave the word in A as it is.
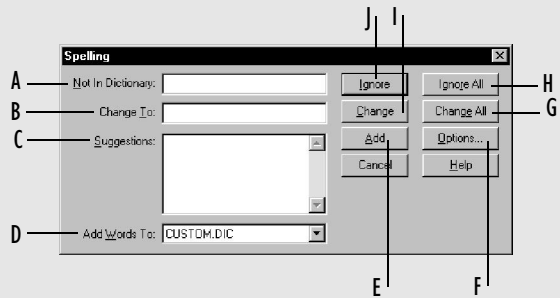
Spelling Options

A   Check the part of the diagram you want to search.

B   Click to add a user dictionary. In the Add User Dictionary box, type a name for the dictionary.

C   Click to use the Microsoft Word Dictoionary.

D   When checked, Visio won't flag words that include numbers as spelling errors. Uncheck to flag words with numbers as misspelled.

E   Under Active, choose a user dictionary.

F   Click here to remove the user dictionary you chose in E.
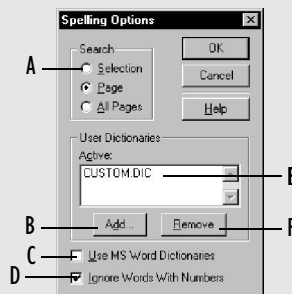
More ➤

To search for a word or phrase:

1. From the Edit menu, choose Find.

2. In the Find box, choose the options you want, type the word or phrase you want to find or choose an option from the Special list, then click Find.

3. Close the Find box to edit the word or phrase.

4. To find the same word or phrase again, click Find Next.
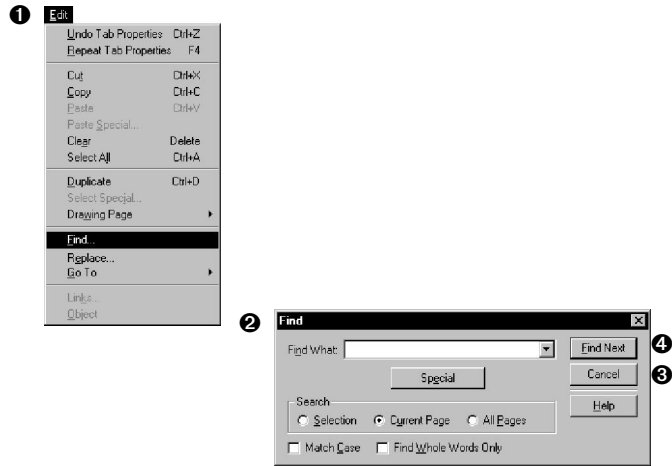
To replace a word or phrase:

1. From the Edit menu, choose Replace.

2. In the Replace box, under Find What, type the word or phrase you want to replace or choose an option from the Special list.

3. Under Replace With, type the new word or phrase or choose an option from the Special list.

4. Choose the search and other options you want.

5. Click Find Next or Replace All.

6. When Visio has finished replacing, a message box appears. Click OK.
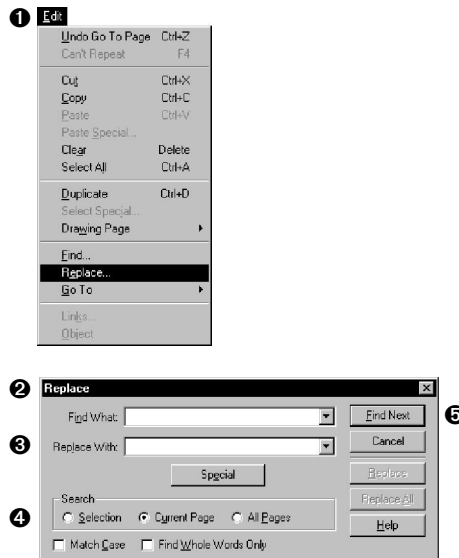
To check spelling in a Visio diagram:

1. From the Tools menu, choose Spelling. Visio begins searching your diagram.

2. For each word not in the dictionary, click the option you want, or type an alternative.

3. When Visio has finished searching, a message box appears. Click OK.
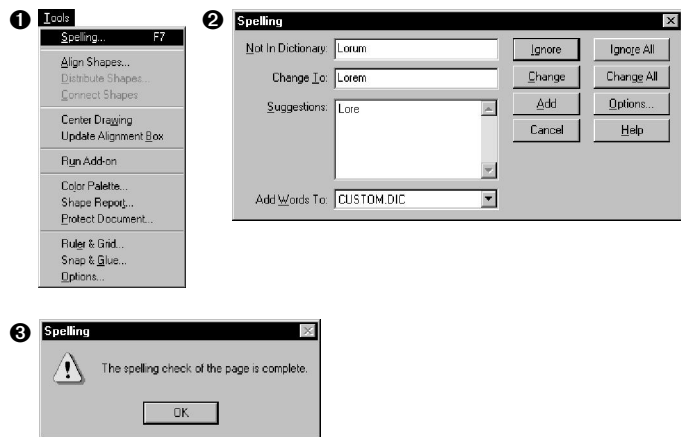
To create a user dictionary:

1. From the Tools menu, choose Spelling.

2. In the Spelling box, click Options.

3. In the Options box, under User Dictionaries, click Add.

4. In the Add User Dictionary box, under File name, type a name for the dictionary, then click Open.

5. In the Spelling Options box, click OK.
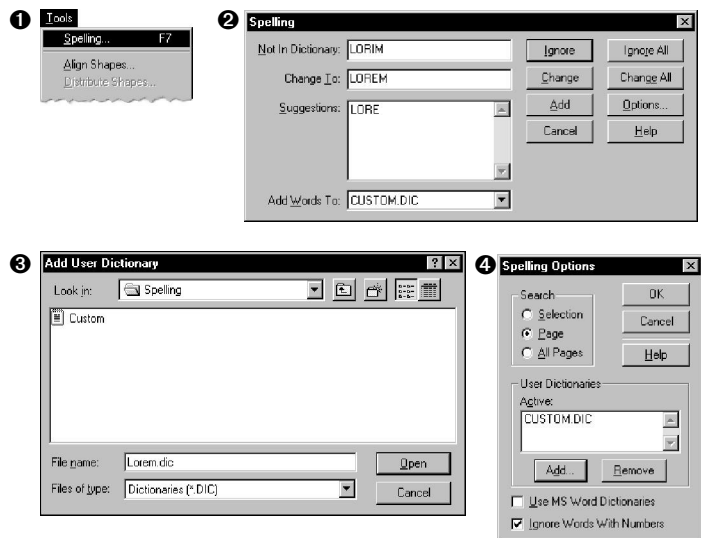
ADDING PAGE NUMBERS AND OTHER FIELDS

Visio can update certain kinds of information in a diagram automatically. This information appears in fields you can size and position on a page.

For example, you can add a page number field to automatically number your diagram pages or a date/time field to display the last date a document was edited. You can also add data and geometry fields to shapes. Geometry fields calculate amounts, such as how far a shape is rotated from its original position.

For related information, see online Help: press F1, click Search, click Index, then type "fields."

1/17/96
9:10 AM

1/21/96
11:15 AM

2/10/96
10:00 AM

90 deg.

65 deg.

45 deg.

25 deg.

0 deg.
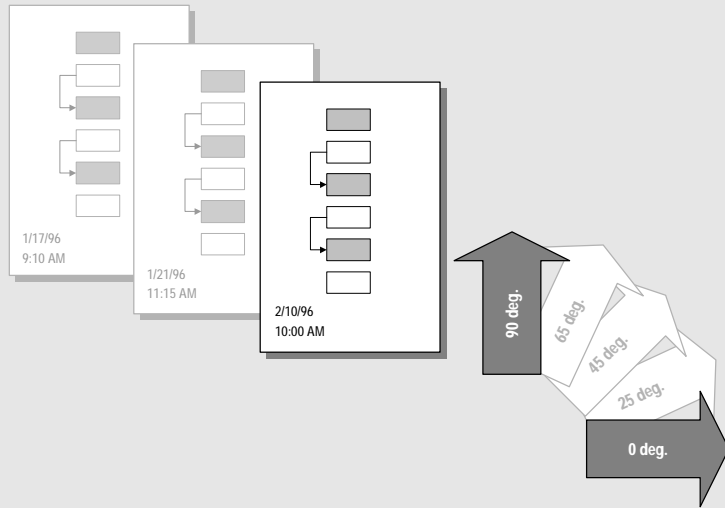
To insert a page number field:

1. Select the text tool, then drag to create a text block on the drawing page.

2. From the Insert menu, choose Field.

3. In the Field box, under Category, choose Page Info.

4. Under Field, choose Page Number, then click OK.

Tip: To have page numbers appear on each page in a multi-page diagram, copy the field, then paste it onto each page. Or, place the page number field on a background page, then assign the background to each foreground page.

❶

❷ Insert
   Page...
   Field...
   Lotus Notes Field...

❸ Field

Category:
Custom Formula
Date/Time
Document Info
Geometry
Object Info
Page Info
Lotus Notes Field

Field:
Background
Name
Number of Pages
Page Number
❹

Format:
General

OK
Cancel
Help

Custom Formula:
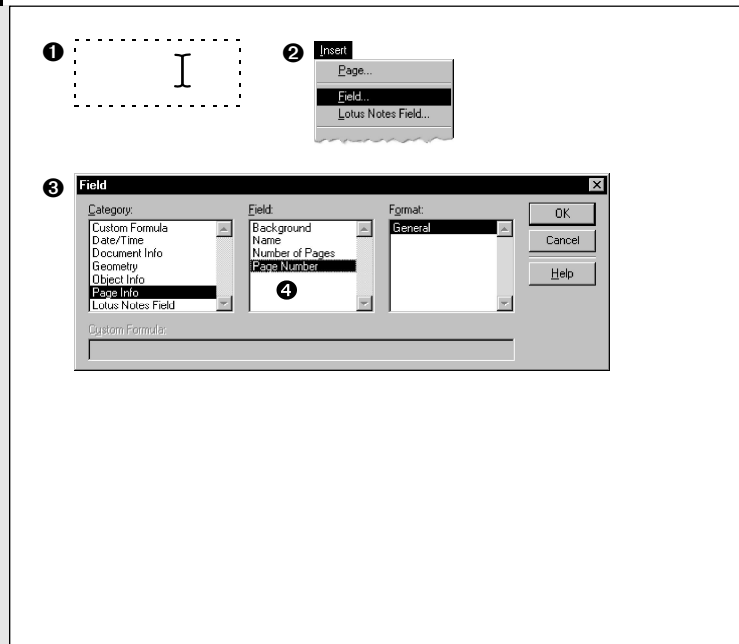
To insert a creation date field:

1. Select the text tool, then drag to create a text block on the drawing page.

2. From the Insert menu, choose Field.

3. In the Field box, under Category, choose Date/Time.

4. Under Field, choose Creation Date. Under Format, choose the format you want, then click OK.

   The creation date field appears on the drawing page.
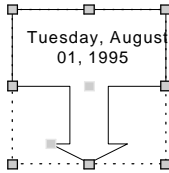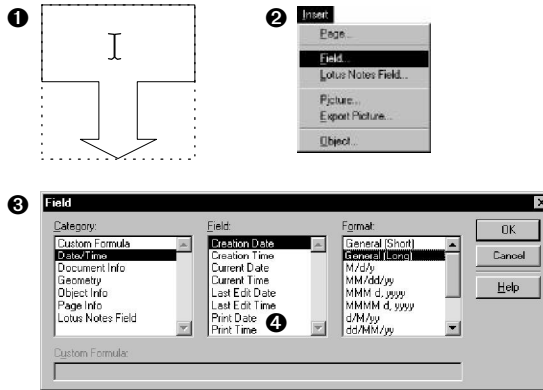
To number shapes:

1. Select the shapes you want to number.

2. From the Insert menu, choose Field.

3. In the Field box, under Category, choose Object Info.

4. Under Field, choose ID, then click OK.

5. The shapes are numbered according to the order in which you dropped them on the drawing page.
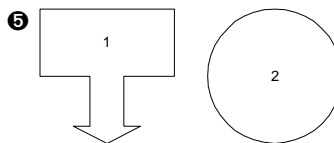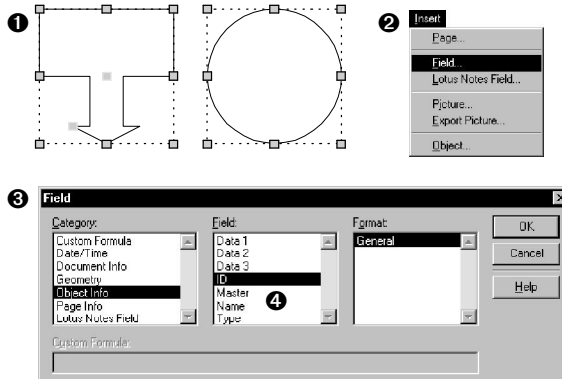
To add dimension fields to a shape:

1. Select the shape to which you want to add dimension fields.

2. From the Insert menu, choose Field.

3. In the Field box, under Category, choose Geometry, then under Field, choose Width.

4. Under Format, choose the format in which you want the field information to appear, then click OK.

5. Choose the text tool, and select the shape. Place the insertion point after the width number and type "x."

6. Follow steps 2 through 4 above, but choose Height instead of Width.

7. Resize the shape and the dimensions will change.

❶

❷ Insert
   Page...
   Field...
   Lotus Notes Field...

❸ **Field**

Category:
Custom Formula
Date/Time
Document Info
Geometry
Object Info
Page Info
Lotus Notes Field

Field:
Width
Height
Angle

Format:
General
General units
0
0 units
0.0
0.0 units
0.00

OK
Cancel
Help

❹

Custom Formula:

❺ A

❻ **Field**

Category:
Custom Formula
Date/Time
Document Info
Geometry
Object Info
Page Info
Lotus Notes Field

Field:
Width
Height
Angle

Format:
General
General units
0
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0.0 units
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OK
Cancel
Help

Custom Formula:

❼

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1x1

Fields you can add to diagrams

To add any of the following fields to a diagram, drag a text block where you want the field or select the appropriate shapes, choose Field from the Insert menu, then choose the options you want.

Field	Use to display
Date/Time	Date and time a file was created, revised, or printed, or display the current date and time. Date and time information are based on the date and time you set in the Windows Control Panel.
Geometry	Width, height, and angle information. Use to update technical specifications in a diagram, create dimension lines, or measure the angle of rotation.
Document Info	Information entered in the Properties box for a file. Includes information such as creator name, file name, subject, key words, and description. Open the Properties box by choosing Properties from the File menu.
Object Info	Information entered in the Special box, such as a shape's name, ID number, and anything you enter in the Data fields. Open the Special box by choosing Special from the Format menu.
Page Info	Information about a foreground page. Some of the information, such as page and background name, comes from the Page Properties box. Use the Page Number field to include a page number on a page.
Lotus Notes	Information from Lotus Notes. For example, you can create a date field in Lotus Notes that automatically updates a Visio timeline. Or, you can enter information in the Visio Properties box and read it in Lotus Notes.
Custom Formula	The result of a calculation you define by entering a formula. For more information, in Online Help, click Search, click Index, then type "custom formulas."

WORKING WITH TEXT

Most drawings are accompanied by text in the form of labels, legends, or titles. In Visio, you can either attach text directly to shapes or type it independently anywhere on the drawing page. When you rotate or move a shape, text attached to it rotates and moves along with it. You can also size, rotate, or move text separately from its shape.

You can change the appearance of both shape and independent text and control its horizontal and vertical alignment.
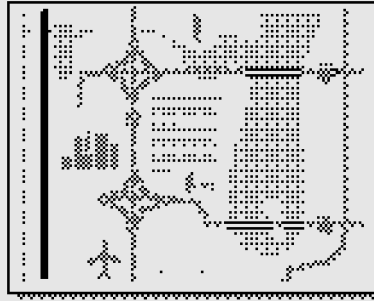
Lorem Ipsum

Lorem Ipsum

<u>Lorem Ipsum</u>

Lorem ipsum amet consectetuer elit, sed diam nonummy.

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Text anatomy

Text in Visio is surrounded by a text block. Use text block selection handles to size the text block or rotate text.

Use the pointer tool to select text blocks and text. Use the text tool to type and edit text. Use the text block tool to size, move, or rotate a text block separately from its shape.

When text is selected, these toolbar buttons apply the indicated formatting.

For related information, see online Help: press F1, click Search, click Index, then type "text."

Lorem Ipsum

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Lorem Ipsum
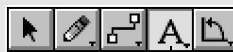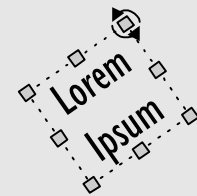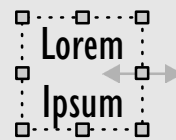
Text tool

Text block tool

Text color	Smaller font	Larger font	Bold	Italic	Underline	Super-script	Sub-script

Left align	Center align	Right align	Justify	Top align	Center align	Bottom align	Rotation tool
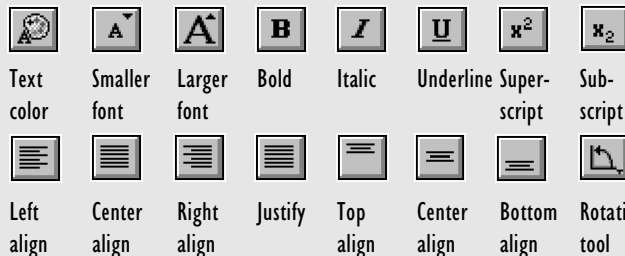
Font Box

A   Choose a font.

B   Choose font size, color, case, and position.

C   Choose font style.

D   Click these buttons to open other text formatting boxes.

E   Click these buttons to format the shape associated with the text block.

F   Click to see the effects of your choices without closing the box.
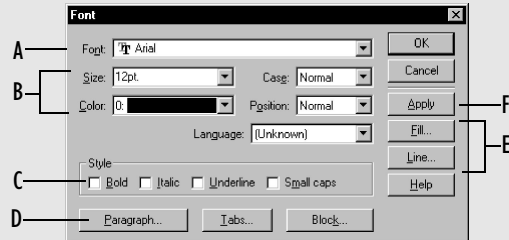
Paragraph Box

A   Choose horizontal alignment.

B   Set the indents between a paragraph and the edge of the text block.

C   Set the spacing between paragraphs and between lines of text.

D   Click to open the Font box.

E   Click to see the effects of your choices without closing the box.
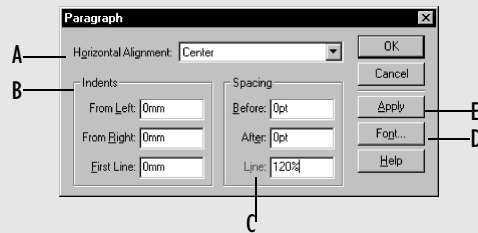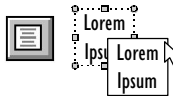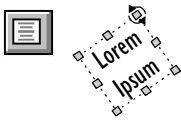
Text Block Box
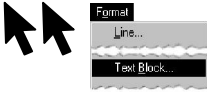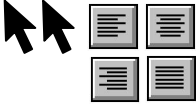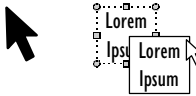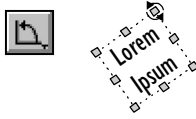
A   Choose vertical alignment.

B   Set the margins between text and the edges of the text block.

C   Click for no text block background.

D   Click to add a colored background to the selected text block.

E   Choose the background color.

F   Open the Font box.

G   Click to see the effects of your choices without closing the box.
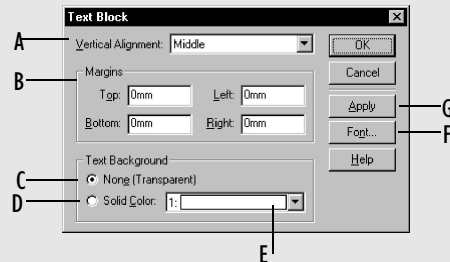
How to work with shape text

To	Use this tool	Take these steps
Attach text to a shape		Select the shape and start typing. If the shape already had text, what you type replaces it. When you finish typing, press the ESC key.
Open a shape text block	A	Click the shape.
Select shape text		Double-click the shape.
Select a shape text block	A	Click the shape.
Select a paragraph, sentence, word, or character in a shape text block	A	Click the shape and, with the insertion point, highlight the text you want.
Change shape text appearance	A	Select the text you want to change. Select the toolbar button, Format menu command, or popup menu selection you want.
Add a colored background to a shape text block		Select the shape, and from the Format menu, choose Text Block. Under Text Background, click Solid Color, choose the color you want, then click OK.
Align shape text horizontally		Double-click the shape, then click the toolbar button for the horizontal alignment you want.
Align shape text vertically		Double-click the shape, then click the toolbar button for the vertical alignment you want.
Resize a shape text block	Lorem Ipsum	Click the shape and drag one of the square selection handles to change the text block's height or width.
Move a shape text block	Lorem Ipsu Lorem Ipsum	Click the shape, place the cursor in the text block, and drag.
Rotate a shape text block	Lorem Ipsum	Click the shape, place the cursor over a round selection handle, and drag in the direction you want the text block to rotate.

How to work with independent text

To	Use this tool	Take these steps
Type independent text		Click where you want to start typing, or drag to choose the size of the independent text block. Type the text, and then press the Esc key.
Open an independent text block		Click the text block.
Select an independent text block		Click the text block.
Select independent text		Double-click the text block.
Select a paragraph, sentence, word, or character in an independent text block		Click the text block, then with the insertion point, highlight the text you want.
Change independent text appearance		Select the text you want to change, then choose the toolbar button, Format menu command, or popup menu selection you want.
Add a colored background to an independent text block		Select the text block, then, from the Format menu, choose Text Block. Under Text Background, click Solid Color, choose the color you want, then click OK.
Align independent text horizontally or vertically		Double-click the text block and then click the toolbar button for the horizontal or vertical alignment you want.
Resize an independent text block		Select the text block, then drag one of the square selection handles to change the text block's height or width.
Move an independent text block		Select the text block, hold down the mouse button, and drag.
Rotate an independent text block		Select the text block, then place the cursor over a round selection handle and drag in the direction you want the text block to rotate. When you finish, release the mouse button.

DUPLICATION TECHNIQUES

In Visio, you can duplicate shapes to quickly create diagrams, such as forms or borders, that are made up of repeating elements. Which technique you use depends upon the kind of duplication you want.
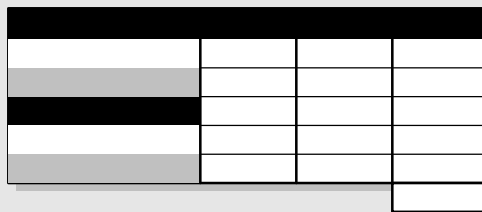
To do this:		Take these actions:
Duplicate a shape		Select the shape. From the Edit menu, choose Duplicate (or press CTRL+D).
Quickly make several duplicated copies of a shape.		Select the shape. Press CTRL+D for each copy you want.
Duplicate a shape at a specific location		Select the shape. Hold down the CTRL key and drag to where you want the copy.
Repeatedly duplicate a shape and the offset between duplicated shapes		Select the shape. Hold down the CTRL key and drag to where you want the copy. Release the mouse button. Press F4 for each copy you want. The space between the shapes is the offset, and will also be duplicated.
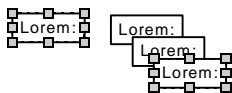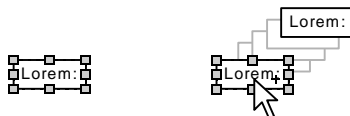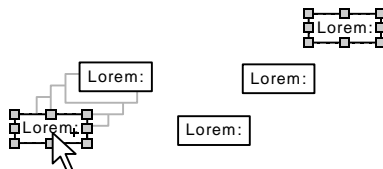
Charts

For an overview of the best way to create a chart, see "The Big Picture."

To create a chart as quickly as possible, turn directly to the "Creating a..." topic that corresponds to the type of chart you want to create.

For detailed information, see the In Depth topics in this and other chapters.

Topics in this chapter

T H E   B I G   P I C T U R E

Determine the type of chart that works
best for the data you want to represent.

1 Open the Chart Template.
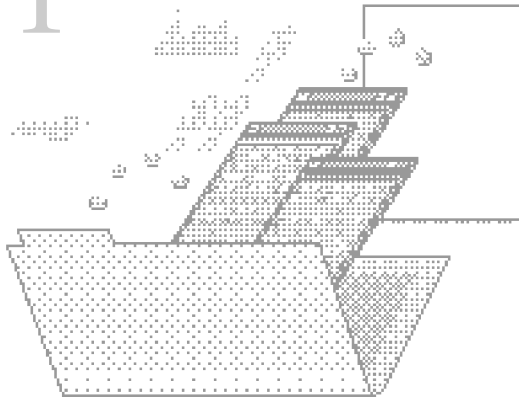
2 Set up the drawing page.
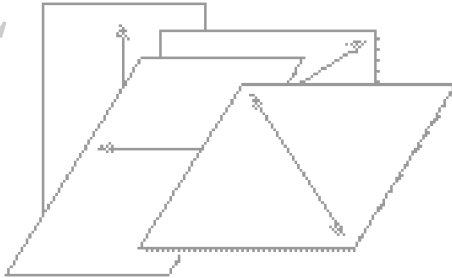
3 Set up the chart scale or axes.
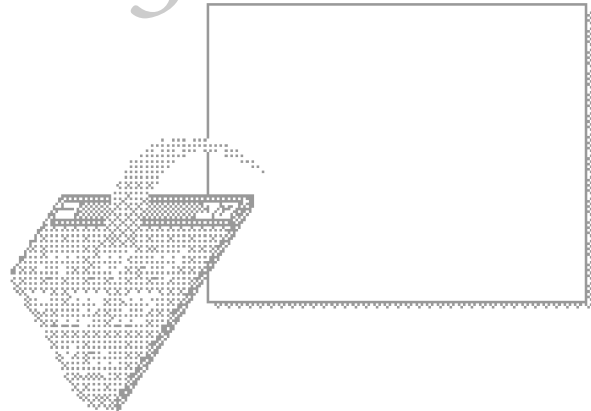
4 Add data.
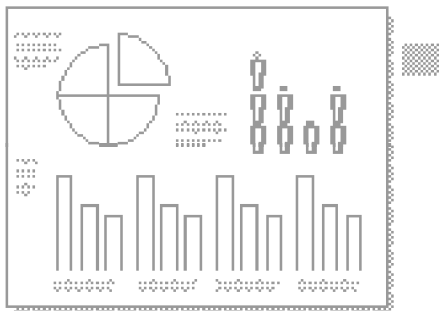
5 Add a title, caption, and other text.

Lorem Ipsum

6 Refine the look of the chart.

Lorem Ipsum

7 Save and produce.

Lorem Ipsum

Lorem Ipsum
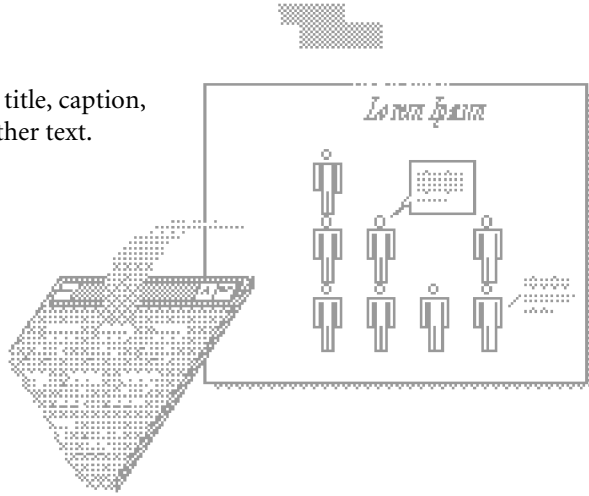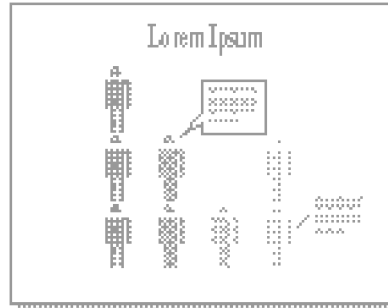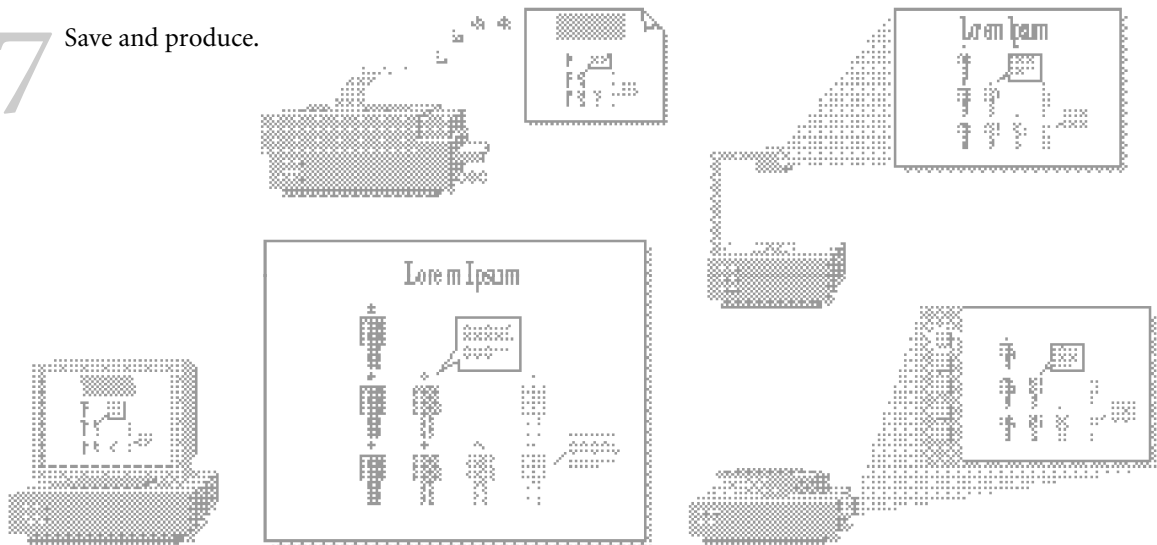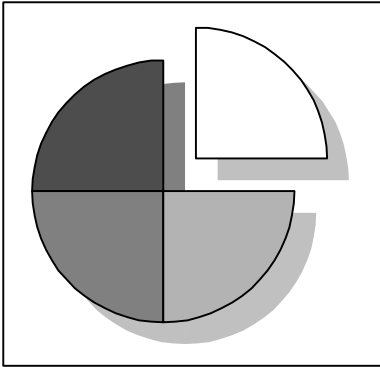
CREATING A PIE CHART

We've provided complete instructions for creating a pie chart. To create your particular chart, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

To open the chart template:

1. Start Visio.

2. In the New box, under Based On, choose Chart Template, then click OK.

Visio opens a new file with a blank drawing page.

To set up the drawing page:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Drawing Size/Scale box, click Same As Printer or choose a standard or custom drawing page size. Leave the scale set as No Scale (1:1). Click OK.

To add pie slices:

1. Drag and drop the Super Smart Slice onto the drawing page.

    (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. Select the slice, then press the CTRL key and drag the shape to duplicate it.

3. Move the duplicate over the first piece so the shapes glue at the center of the pie. (The endpoint turns red).

4. Drag the duplicate piece's endpoint to position the piece to the left of the original piece.

5. Drag the duplicate piece's control handle to size it.

6. Repeat steps 2 through 5 to create the rest of the slices, moving counterclockwise around the pie.

Drag the endpoint.

Drag the control handle.
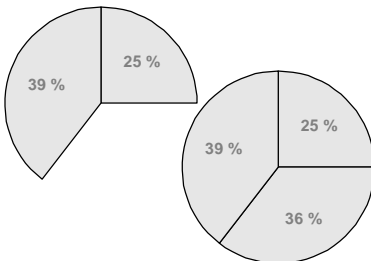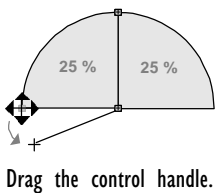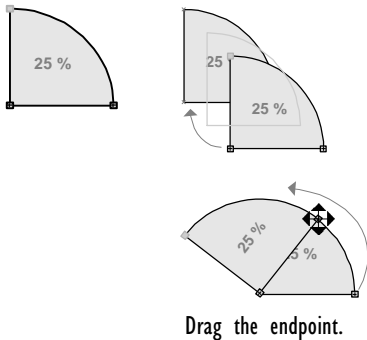
To emphasize one pie slice:

1. Choose Snap & Glue from the Tools menu, then uncheck Glue.

2. Select each pie slice and move it slightly to break the glue (the endpoints change from red to green), then snap it back into place.

3. Move the slice you want to emphasize away from the other slices.

To add a title or caption:

1. Drag and drop an 8-point, 10-point, or 12-point Text Block shape where you want the upper-left corner of the caption or title.

2. With the text block selected, type the text you want. As you type, the shape expands to accommodate the text.

3. Drag a selection handle to change the text block size. From the Format menu, choose Font to change the attributes of the text.
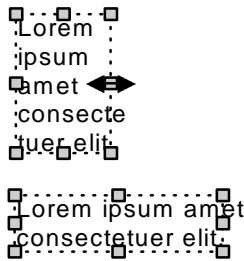
To add callouts:

1. Drag and drop one of the callout shapes near the shape you want to call out.

2. Select the callout shape and type the text you want. Drag a selection handle to resize the shape.

3. Drag a selection or control handle (depending on the shape) to adjust the length and angle of the pointer.
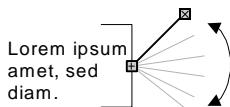
Refine the look of the chart

To change the way a pie slice looks:

1. Select the pie slice you want to change.

2. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

3. From the Format menu, choose Line. In the Line box, choose the options you want, then click OK.

To change the way text looks:

1. Select the text block you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

Save and produce the chart
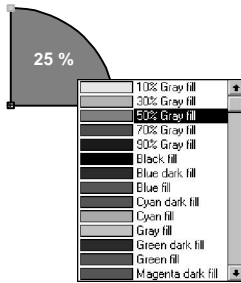
To name and save a completed pie chart:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the chart, choose the other options you want, then click Save.

To print a pie chart:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the pie chart in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your chart file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

CREATING A BAR CHART

We've provided complete instructions for creating a bar chart. To create your particular chart, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

To open the chart template:

1. Start Visio.

2. In the New box, under Based On, choose Chart Template, then click OK.

Visio opens a new file with a blank drawing page.

To set up the drawing page:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Drawing Size/Scale box, click Same As Printer or choose a standard or custom drawing page size. Leave the scale set as No Scale (1:1). Click OK.

For more details, see:

Setting Up a Diagram 202

To set up the chart scale or axes:

1. Drag and drop a Graph Scale shape onto the drawing page.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. Drag a selection handle to make the graph scale the height you want.

3. With the graph scale selected, type a number for the topmost point on the scale.

To add bars:

1. Decide whether you want a black-and-white or color chart and whether you want the bars to represent numbers or percentages, then drag the appropriate Bar Graph shape onto the drawing page. Line it up with the graph scale.

The nonprinting bar determines graph height.

Drag the control handle to set bar width.
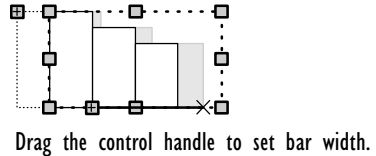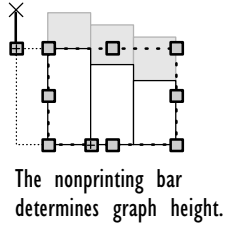
2. Drag the control handle on the non-printing bar to the left of the bar graph to change the height of the shape. The value in the non-printing bar determines the scale.

3. Drag the control handle at the bottom of the bar graph to change the width of the bars. As you widen the bars, the number of bars decreases.

4. Select the bar graph, then click a bar to subselect it. Type a value for the height of the particular bar. Continue subselecting bars and typing values until all the bars are the correct height.

5. Select the bar graph, then drag the control handle in the red area to the left of the first bar to change the relative height of all the bars.

To add a title and captions:

1. Drag and drop an 8-point, 10-point, or 12-point Text Block shape where you want the upper-left corner of the caption or title.

2. With the text block selected, type the text you want. As you type, the shape expands to accommodate the text.

3. Drag a selection handle to change the text block size. If you want to change font size, choose Font from the Format menu. In the Font box, choose a font size, then click OK.

4. Drag and drop Vertical Bar Text or Horizontal Bar Text shapes to add x- and y-axis labels. Select a text shape and type the text you want.

5. Drag and drop Row/Column Header shapes at the base of each bar. If you want to rotate the shapes, select the Rotate tool on the toolbar and rotate row/column Headers until they face the correct direction. Select a row/column header and type the text you want.
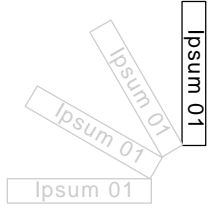
For more details, see:

To add callouts:

1. Drag and drop one of the callout shapes near the data point you want to call out.

2. With the callout shape selected, type to add the text you want. With the pointer tool, drag a selection handle to resize the shape.

3. Drag a selection or control handle (depending on the shape) to adjust the length and angle of the pointer.
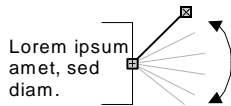
Refine the look of the chart

To change the way a bar looks:

1. Select the bar graph, then click to subselect the bar you want to change.

2. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

3. From the Format menu, choose Line. In the Line box, choose the options you want, then click OK.
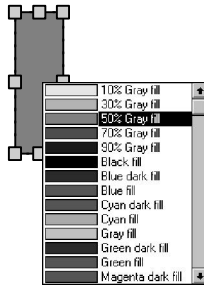
To change the way the graph scale looks:

1. Select the graph scale, and from the Format menu, choose Line.

2. In the Line box, choose the line thickness and pattern you want, then click OK.

To change the way text looks:

1. Select the text block you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

For more details, see:

Save and produce the chart

To name and save a completed bar chart:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the chart, choose the other options you want, then click Save.

To print a bar chart:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the bar chart in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your chart file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

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CREATING A LINE CHART

We've provided complete instructions for creating a line chart. To draw your particular chart, you may not need to complete each of the following steps.

Shape Help is the best source of information about particular shapes. To open it, right-click a shape, then choose Shape Help from the shortcut menu.

To open the chart template:

1. Start Visio.

2. In the New box, under Based On, choose Chart Template, then click OK.

Visio opens a new file with a blank drawing page.

To set up the drawing page:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, click Portrait (tall) or Landscape (wide) orientation, choose a paper size, then click OK.

3. From the Edit menu, choose Drawing Page, then choose Size & Scale.

4. In the Drawing Size/Scale box, click Same as Printer or choose a standard or custom drawing page size. Leave the scale set as No Scale (1:1). Click OK.

For more details, see:

To set up the chart scale or axes:

1. Drag and drop a Graph Scale shape onto the drawing page.

   (For details about how to use a shape, right-click it on the page or on the stencil, then choose Shape Help.)

2. Drag a selection handle to make the Graph Scale shape the height you want.

3. With the graph scale selected, type a number for the topmost point on the scale.

To add and position data points:

1. Drag the Line Graph shape onto the drawing page and line it up with the graph scale.

2. If you need to add more data points, align a second Line Graph shape at the end of the first, then flip the second shape horizontally.

Drag data point control handles.

Lorem   Ipsum   Arnet   Cons   Sect   Elit
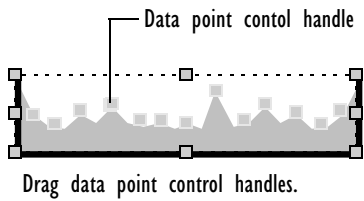
3. If you need to delete data points, drag them to the right edge of the graph.

4. Select the line graph and drag side selection handles to change its height and width.

5. Drag the control handles associated with each data point to the appropriate value on the scale.

To add x- and y-axis labels to the line graph:
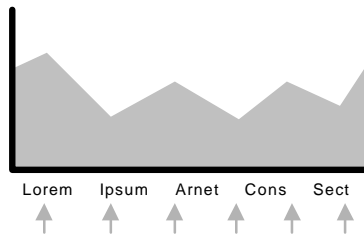
1. Select the line graph, then click below the x-axis to subselect the x-axis text block. Type the label you want.

2. Select the line graph, then click to the left of the y-axis to subselect the y-axis text block. Type the label you want.

To add a title and captions:

1. Drag and drop an 8-point, 10-point, or 12-point Text Block shape where you want the upper-left corner of the caption or title.

2. With the text block selected, type the text you want. As you type, the shape expands to accommodate the text.

3. Drag a selection handle to change the text block size. If you want to change font size, choose Font from the Format menu. In the Font box, choose a font size, then click OK.

4. Drag and drop Vertical Bar Text or Horizontal Bar Text shapes to add x- and y-axis labels. Select a text shape and type the text you want.

To add callouts:

1. Drag and drop one of the callout shapes near the data point you want to call out.

2. With the callout shape selected, type to add the text you want. With the pointer tool, drag a selection handle to resize the shape.

3. Drag a selection or control handle (depending on the shape) to adjust the length and angle of the pointer.

Refine the look of the chart

To change the length of the black border along the x- and y-axes:

1. Drag the control handles at the upper-left and lower-right corners of the line graph.

To add horizontal or vertical grid lines to a line graph:

1. Select the Line tool from the drawing tool menu on the toolbar, then draw the lines you want.

To change the look of the area below the line:

1. Select the line graph, then click to subselect the area.

2. From the Format menu, choose Fill. In the Fill box, choose the options you want, then click OK.

To emphasize the data points:

1. Drag and drop Data Point shapes on top of each data point on the line graph.
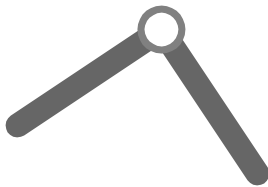
To create a heavy line that follows the fluctuations of the chart:

1. Drag and drop Graph Line shapes over each line segment on the line graph, aligning the endpoints with data points.

To change the way text looks:

1. Select or subselect the text block you want to change.

2. From the Format menu, choose Font. In the Font box, choose the options you want, then click OK.

For more details, see:

Save and produce the chart

To name and save a completed line chart:

1. From the File menu, choose Save As.

2. In the Save As box, type a name for the chart, choose the other options you want, then click Save.

To print a line chart:

1. From the File menu, choose Print.

2. In the Print box, choose the print options you want, then click OK.

To place a copy of the line chart in another document:

1. Choose Select All from Visio's Edit menu to select the entire diagram, then, from the Edit menu, choose Copy.

2. Open the destination document, then choose Paste (or the equivalent) from that program's Edit menu.

To link your chart file to another document (so that when you update the original you'll also update the linked copy in the document):

1. Make sure nothing is selected, then choose Copy Drawing from Visio's Edit menu.

2. In the destination document, choose Paste Special (or the equivalent) from that program's Edit menu.

3. In the Paste Special box, choose the format for the linked file, click Paste Link, then click OK.

For more details, see:

ADDING SPECIAL EFFECTS TO CHARTS

Use Visio's stretchable and stackable shapes to add interest to your charts. For example, a stretchable arm or flower can indicate growth more effectively than a bar. Columns of stackable dollars or people show budgetary or population variations more dramatically than a fluctuating line.

The Chart stencil includes some stretchable and stackable shapes, which you can identify by name (Stretchable Dollars) or by icon (the People icon has several people shapes on it). You can also create stretchable and stackable shapes of your own.
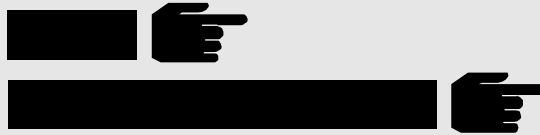
When you increase the size of a stretchable shape, part of the shape stretches.
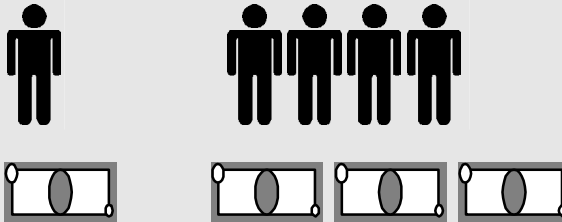
When you increase the size of a stackable shape, the shape duplicates itself.

Creating stretchable shapes

Stretchable shapes can be two- or three-part shapes. Each part can be a shape from a Visio stencil, a shape you draw, or a piece of clip art. Where you place the parts determines which part stretches. Simple, drawn shapes make the best stretchable parts. Complex shapes may distort when they stretch.

In a two-part stretchable shape, the left part stretches.

In a three-part stretchable shape, the middle part stretches.

Stretchable shapes can be solid or they can include gaps between parts.

To create a stretchable shape:

1. Assemble the parts of the stretchable shape you want to create, placing the stretchable part on the left or in the middle of the shape.

2. From the Tools menu, choose Run Add-on.

3. Choose GraphMaker.

4. In the GraphMaker box, click Extend-o shape, then click Next.

5. In the Extend-o Shapes Options box, choose the options you want.

6. Click Select Shapes, then follow the instructions in the Select Shapes boxes.

7. In the Extend-o Shapes Options box, click Create.

Tip: You can modify a stretchable shape after you've created it. Right-mouse click the shape, then choose Shape Properties to change height, width, or the offsets between shape parts.

GraphMaker options

A   Click to determine the number of pieces in the stretchable shape.

B   Type the amount of space you want between shapes.

C   Choose which way you want the stretchable shape to stretch.
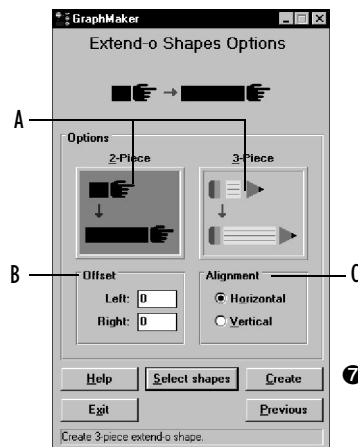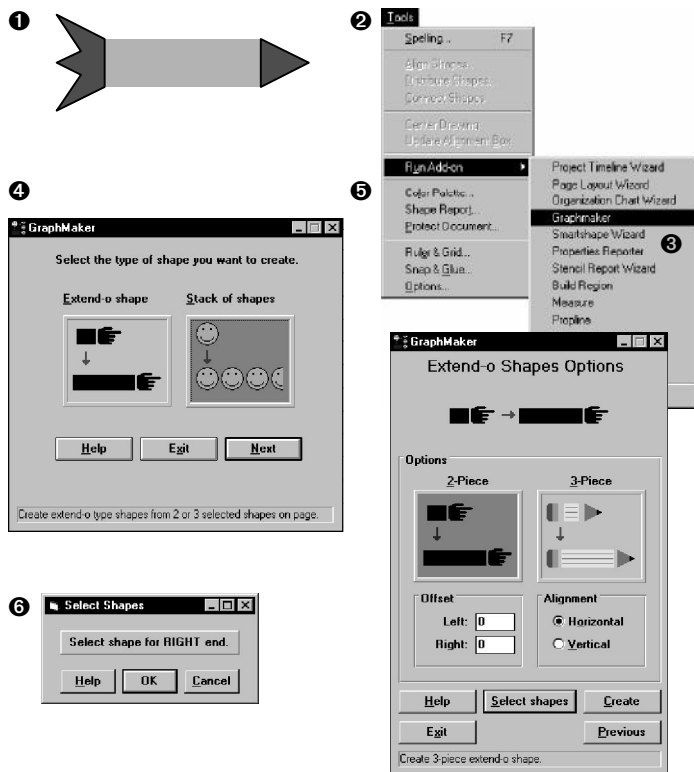
To create a stretchable shape from parts of a single shape:

1. Drag and drop the shape you want to use onto the drawing page.

2. Select the shape, then copy it.

3. From the Edit menu, choose Paste Special.

4. In the Paste Special box, select Windows Metafile Data, then click OK.

5. Repeat steps 3 and 4 until you have as many instances of the shape as you want.

6. Select the crop tool and crop each instance to create the parts for the stretchable shape.
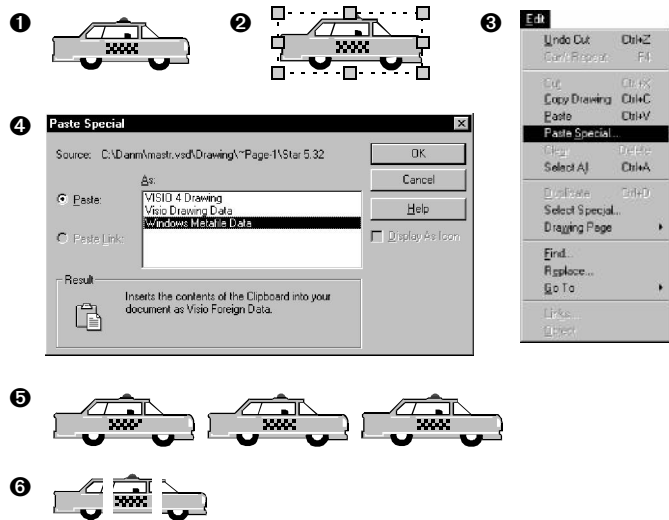
Creating stackable shapes

Any shape or piece of clip art can be stacked.

You can control how shapes stack. For example, you can stack shapes horizontally or vertically. You can fix the number of shapes in a stack or make the number change as the stack is stretched. Shapes in a stack can have spaces between them and the alignment between shapes can vary.
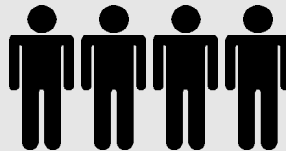
Horizontal stack
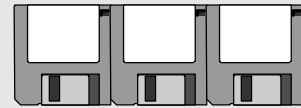
Fixed stack

Vertical stack
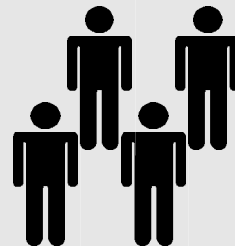
Variable stack alignment between shapes

To create a stack:

1. Drag and drop the shape you want to stack onto the drawing page and select it.

2. From the Tools menu, choose Run Add-on.

3. Choose GraphMaker.

4. In the GraphMaker box, click Stack Of Shapes, then click Next.

5. In the Stackable Shapes Options box, choose the options you want, then click Create.

Tip: You can modify a stack after you've created it. Right-mouse click the stack, then choose Shape Properties to change the height, spacing or offset between shapes, and the stack's background color.

Graphmaker options

A   Choose a variable length or fixed length stack.

B   Type the number of shapes in the stack.

C   Type the amount of space you want between shapes.

D   Type the amount you want each shape offset from the one before.

E   Type the length or height of a horizontal or vertical stack.
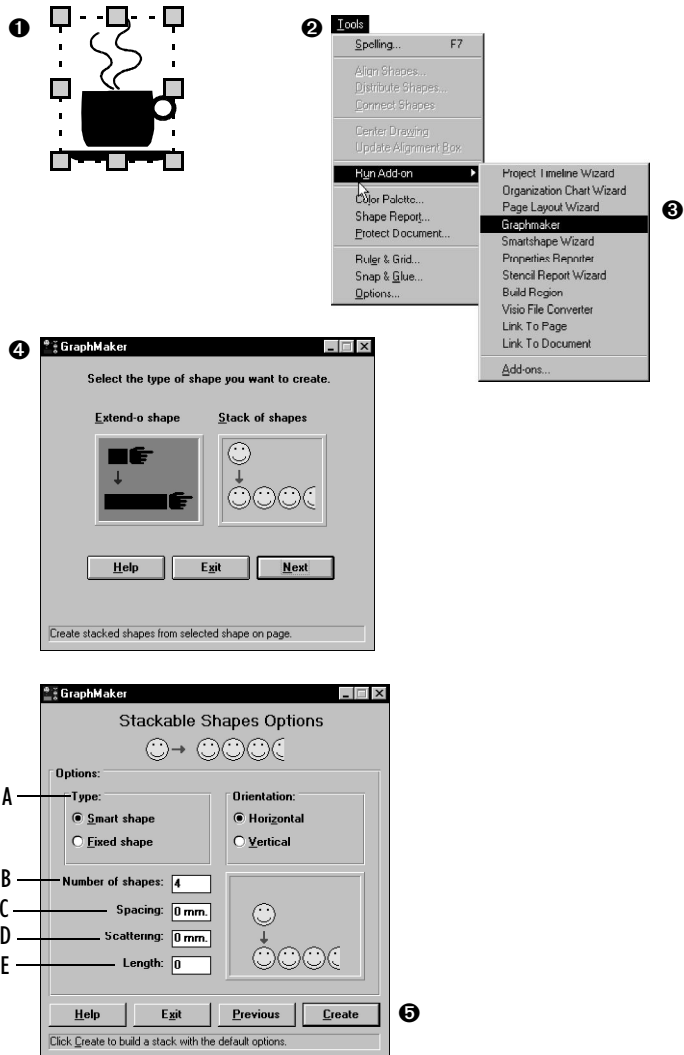
USING CLIP ART IN VISIO DIAGRAMS

Visio shapes are more than clip art. Each shape has a ShapeSheet™ spreadsheet attached to it that contains information about the shape's geometry and behavior. When you change ShapeSheet information, you change shape appearance and behavior.

Because they have ShapeSheets, Visio shapes are smart. Not only can you resize, flip, and rotate them, you can also predict their behavior and control it in special ways.

In addition to smart shapes, Visio includes clip art. Clip art shapes are available on a stencil from which you drag and drop them onto a drawing page. You can also import clip art from other sources into Visio diagrams.

Although you can't expect clip art to behave like Visio's shapes, you can modify it in several ways. You can also convert clip art in Windows metafile format to Visio shapes. The converted shapes act like Visio shapes.

You can also use clip art for adding special effects to charts and other diagrams.

Tip: When you crop clip art, Visio retains the part you crop so you can always adjust the crop by choosing the Crop tool and dragging a selection handle.

What you can do with Visio shapes:

Original shape

Flipped shape

Rotated shape

ShapeSheet

When you stretch the arrow, its arrowhead size doesn't change.

Use the arrow's control handles to customize the arrowhead and the tail.

What you can do with clip art:
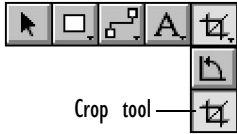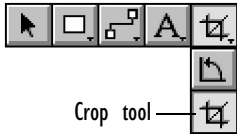
Sizing   Cropping

Repositioning   Converting to a Visio shape

Working with Clip Art

To	Use this tool	Follow these steps
Change the size of a piece of clip art.		Select the clip art. Drag a side or corner selection handle until the clip art is the size you want.
Crop a piece of clip art.	 Crop tool	Select the clip art. Drag a selection handle until the object's borders are the size you want.
Reposition a piece of clip art.	 Crop tool	Select the clip art. Point inside the object and press the left mouse button. Drag until the object is positioned where you want it.
Convert a piece of clip art to a Visio shape.		Select the clip art. From the Shape menu, choose Grouping, then choose Convert To Group.

To import a piece of clip art:

1. Choose the pointer tool, and from the Insert menu, choose Picture.

2. In the Picture box, under Files Of Type, choose the type of file you want to import.

3. Under Look In, locate and choose the file you want to import, then click Open.
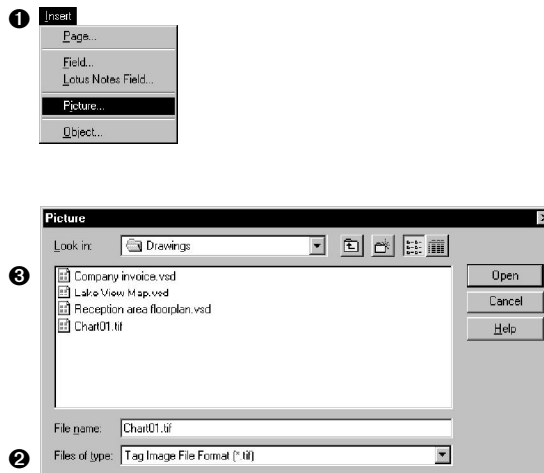
PRINTING DIAGRAMS

Unless you reduce or enlarge a diagram before you print, the size of the final Visio diagram will match the size of the drawing page. Large diagrams, therefore, print across several sheets of regular-sized printer paper. Small diagrams print on part of a page.

Visio never crops a diagram to fit within the margins. You can, however, center a diagram, reduce or enlarge it before you print, or force it to fit on one or more printed pages.

To make sure you'll get the printed results you expect, preview a diagram before you print.

For related information:
Setting Up a Diagram 202

See online Help: press F1, click Search, click Index, then type "printing."

Tile area for
upper-left corner

Overlap

Tile area for
lower-left corner
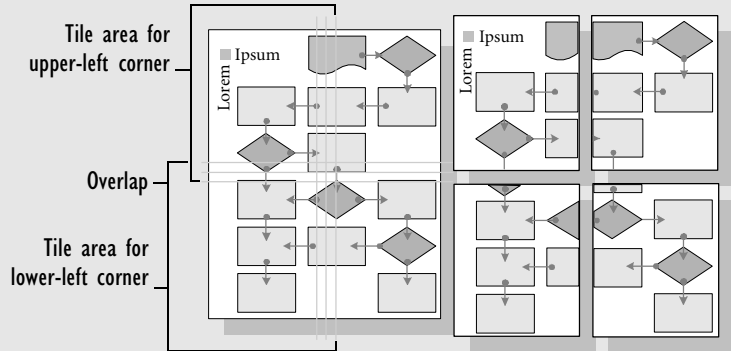
A flowchart on an 297 x 420 mm drawing page will print across several 210 x 297 mm sheets of printer paper.
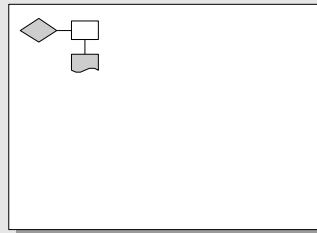
By default, a small diagram prints in the upper left corner of an 210 x 297 mm printer page. By changing the margin settings, you can change where the diagram prints.

To preview how a diagram will print:

1. From the File menu, choose Print Preview.

2. In the Print Preview window, preview how the drawing fits within the margins or prints across several pages.

3. Click Close to return to the drawing window.

Print Preview options

A Click to see individual printer pages, also called tiles.

B Click to see the entire drawing page divided into tiles by gray borders.

C Click to move to the last tile.

D Click to move to the next tile.

E Click to move to the previous tile.

F Click to move to the first tile.
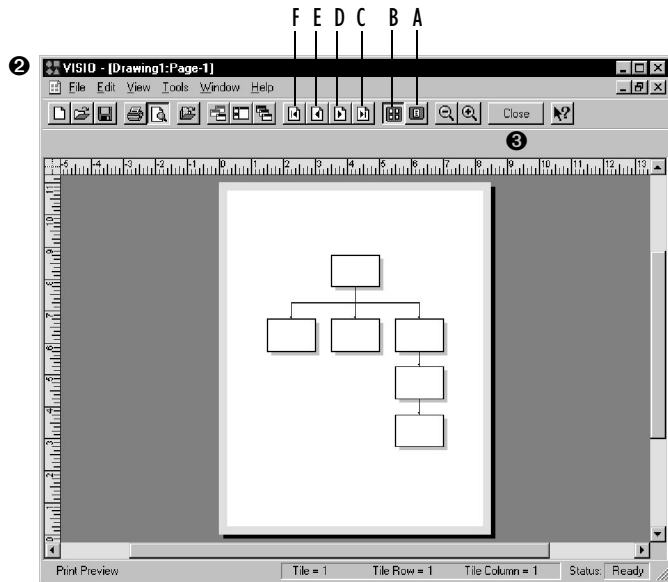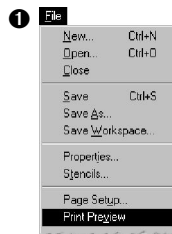
To set margins:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, under Margins, type the margin settings you want.
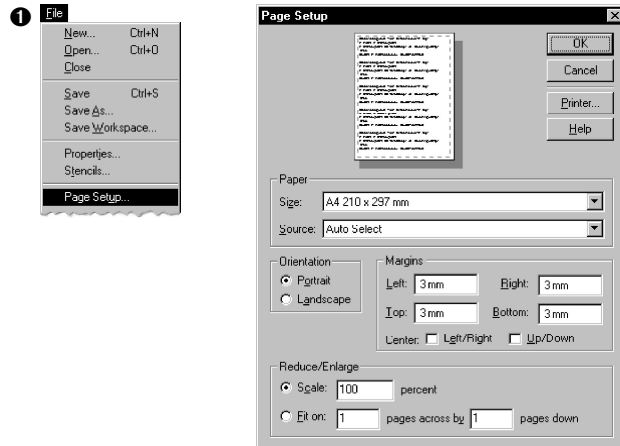
To reduce or enlarge a diagram:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, under Reduce/ Enlarge, check Scale, then enter the percent you want the diagram to scale, or check Fit On, then choose the number of pages across and down on which you want your diagram to print.
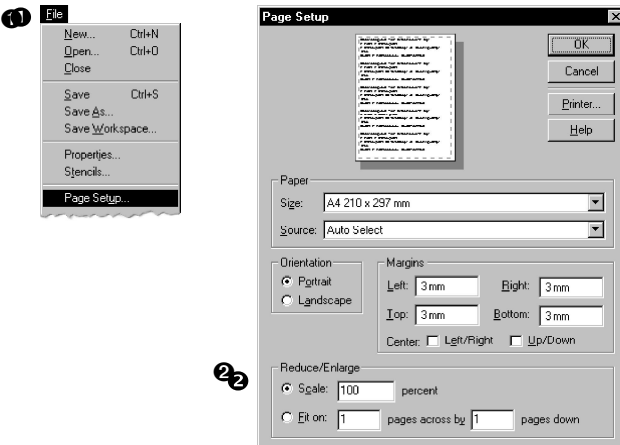
To force a diagram to fit on a page:

1. From the Edit menu, choose Drawing Page, then choose Size & Scale.

2. In the Drawing Size/Scale box, under Drawing Size, check Fit Page To Drawing Contents, then click OK.

3. From the File menu, choose Page Setup.

4. In the Page Setup box, under Reduce/Enlarge, check Fit On, then click OK.
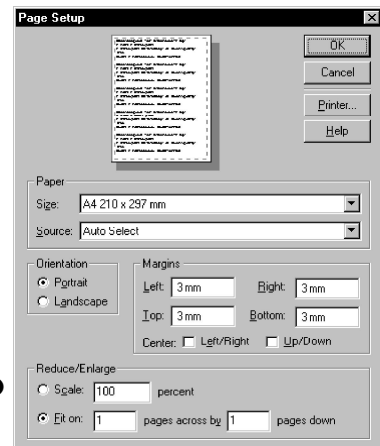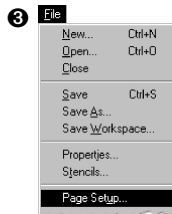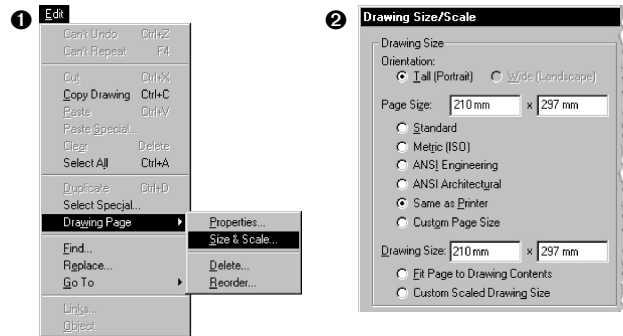
To print a diagram:

1. From the File menu, choose Print.

2. In the Print box, choose the options you want, then click OK.
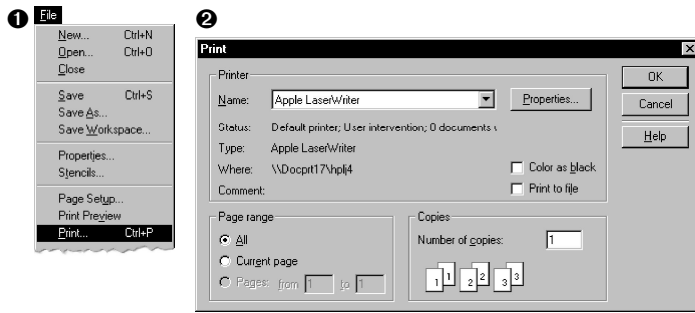
SETTING UP A DIAGRAM

When you open a Visio template for a particular type of diagram, the drawing page is already set up. You'll only need to change the settings if your diagram will be an unusual size or if you want to set a particular drawing scale.

It is important, however, to choose printer settings, including printer paper size and orientation. Be sure the orientation of the printer page matches the orientation of the drawing page.

While the printer page size and the drawing page size don't have to be the same, there is a relationship between them. For example, you might want to draw a 420 x 297 mm flowchart, so that would be the size of your drawing page. Your printer, however, might accept only 210 x 297 mm sheets, so that would be the printed page size. The drawing would print, or tile, across two sheets of printer paper.

You can set the final Visio diagram size to equal the size of a rectangle that tightly encloses the shapes on the page. This feature is particularly useful when you want to include Visio diagrams in other documents, such as PowerPoint presentations or Microsoft Word reports. By tightly enclosing a diagram, you eliminate extra white space around its edges.

For related information:

See online Help: press F1, click Search, click Index, then type "pages: setting up."
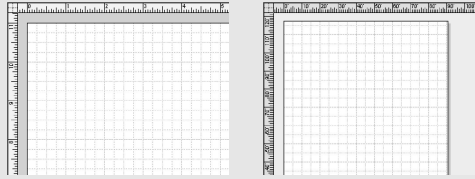
The rulers and drawing page you see in the drawing window reflect the Visio drawing page settings.
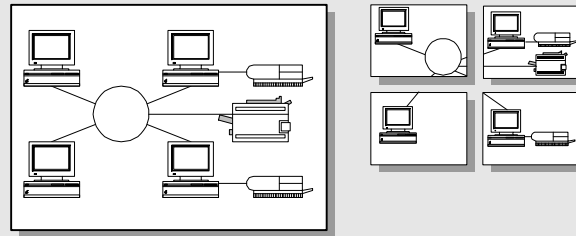
Printer paper and drawing page size are not always the same. For example, an 297 x 420 mm flowchart will print across several 210 x 297 mm sheets of printer paper.
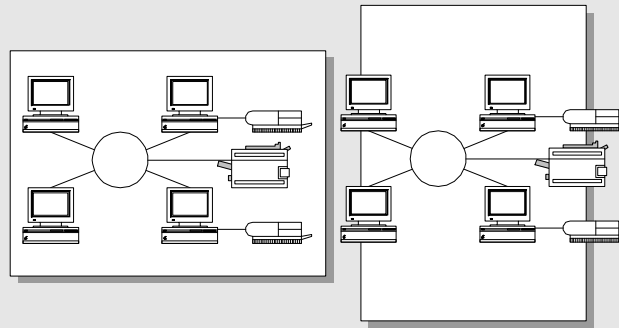
If you change the drawing page settings, you'll also need to change the printer page settings or your printed results may not be what you expect.

To set up the printed page:

1. From the File menu, choose Page Setup.

2. In the Page Setup box, choose the printed page size and orientation options you want, then click OK. Use the display at the top of the box to see the effect of your choices.

❶

File	
New...	Ctrl+N
Open...	Ctrl+O
Close	
Save	Ctrl+S
Save As...	
Save Workspace...	
Properties...	
Stencils...	
Page Setup...	

❷

Page Setup

OK Cancel Printer... Help

Paper
Size: A4 210 x 297 mm
Source: Auto Select

Orientation
○ Portrait
○ Landscape

Margins
Left: 3 mm   Right: 3 mm
Top: 3 mm   Bottom: 3 mm
Center: ☐ Left/Right   ☐ Up/Down

Reduce/Enlarge
○ Scale: 100 percent
○ Fit on: 1 pages across by 1 pages down

More ➤
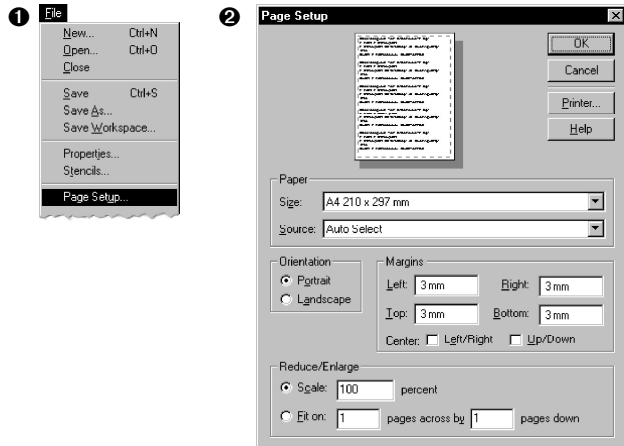
To set up the drawing page:

1. From the Edit menu, choose Drawing Page, then choose Size & Scale.

2. In the Drawing Size/Scale box, under Drawing Size, choose the options you want, then click OK.

Drawing Size/Scale Options

A   Check to make the drawing page size and orientation settings match the printed page settings. In most templates, this option is checked by default.

B   Check to choose a standard size for the final Visio diagram, then choose the size you want from the list.

C   Check to enter custom dimensions for the final Visio diagram, then enter the dimensions you want.

D   Check to make the final Visio diagram size equal to the size of a rectangle that tightly encloses the shapes on it.

E   If you're drawing to scale, check to enter custom scale dimensions for the final drawing size.
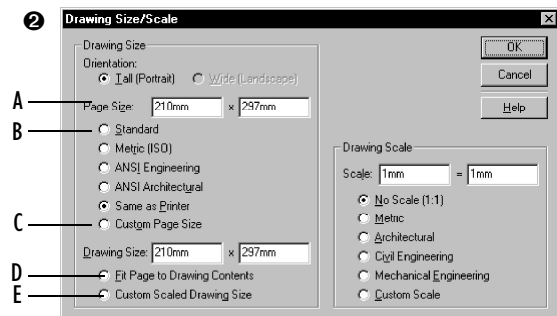
Using Visio with Other Programs

For an overview of which methods to use when moving information between Visio and other programs, turn to Placing Visio Information or Placing Information in Visio.

Consult the documentation for programs you want to use with Visio, they don't all move information the same way.

Topics in this chapter

PLACING VISIO INFORMATION

When you want to include Visio shapes or diagrams in other documents, you can choose among several methods. For example, you can paste a Visio flowchart in a PowerPoint presentation or link an office layout to a Word report. See the chart on the following page for help in choosing a method.
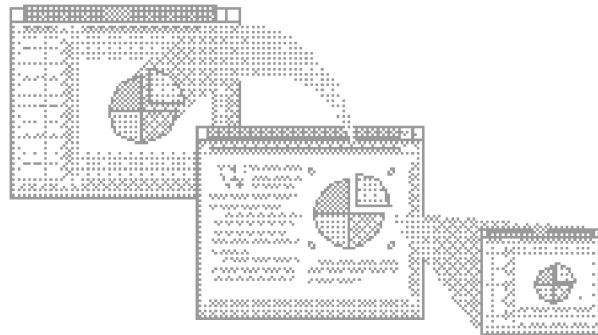
Copying and pasting
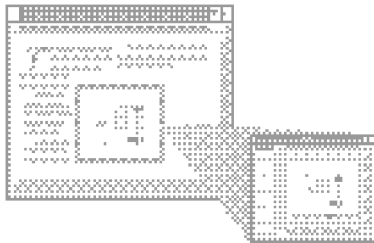
Creating Visio diagrams from within other programs
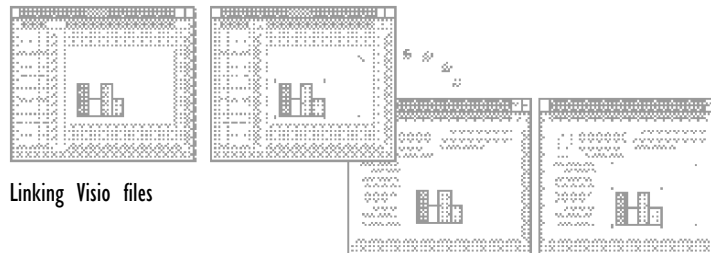
Linking Visio files

Exporting Visio shapes and diagrams into a format other programs can use

To	Do this	Conditions	Advantages
Place a Visio shape into another document.	Copy and Paste. See procedure on page 208.	The other program must support the Windows Clipboard.	Almost all programs support copy and paste.
Be able to edit a Visio shape or diagram you've placed into another document.	Copy and Paste. See procedure on page 208.	The other program must support the Windows Clipboard and Object Linking and Embedding (OLE).	You can edit the Visio diagram without leaving the other program. Move the document file to another system without also moving the Visio file.
Include a Visio shape or diagram in another document where you're currently working.	Create a Visio diagram within another program. See procedure on page 209.	The other program must support in-place editing or editing-in-context and Object Linking and Embedding (OLE).	Create a diagram without leaving the program where you're currently working.
Place a Visio diagram that you update frequently into another	Link the Visio file See procedure on page 210.	The other program must support Object Linking and Embedding (OLE). If you move the document to another system, you must also move the Visio file.	When you update the original Visio diagram, changes appear in the other document. The entire Visio file is not included in the other document, so the file size remains relatively small.
Place a Visio diagram you update frequently in several different documents.	Link the Visio file. See procedure on page 210.	The other programs must support Object Linking and Embedding (OLE). If you move any of the document files to another system, you must also move the Visio file.	When you update the original Visio diagram, changes appear in all the other documents. The entire Visio file is not included in the other documents, so file size remains relatively small.
Convert a Visio diagram to another file format to import it into another document.	Export the Visio file. See procedure on page 211.	You must have the appropriate Visio export filters installed.	Convert a Visio diagram into a format you can open in another program. Allows you to share Visio diagrams with people who don't have Visio.

For related information, see online Help: press F1, click Search, click Index, then type "copying, "embedding," "linking," or "exporting."

More ➢

To copy and paste selected Visio shapes:

1. In Visio, select the shapes you want to paste.

2. From the Edit menu, choose Copy.

3. In the document where you want to paste the shapes, from the Edit menu, choose Paste (or the equivalent command).

Tip: You can also copy and paste Visio information by dragging and dropping it into another file (as long as the file's program supports OLE 2). Display the Visio and destination files side by side. Select the Visio shapes you want to copy, hold down the CTRL key, and drag the shapes into the destination file.
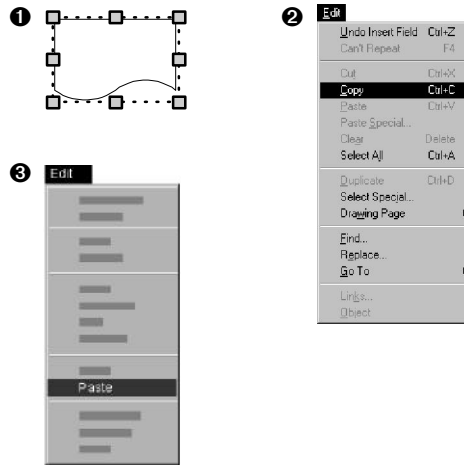
To copy and paste an entire Visio diagram:

1. In Visio, make sure nothing is selected.

2. From the Edit menu, choose Copy Drawing.

3. Copy Drawing copies the entire document, including shapes on background pages and on foreground pages other than the current one.

4. In the document where you want to paste the diagram, from the Edit menu, choose Paste (or the equivalent command).

Tip: Even though Copy Drawing copies all the shapes in a Visio diagram, in the document where you paste the diagram, you'll only see the shapes on the displayed foreground page and its backgrounds.
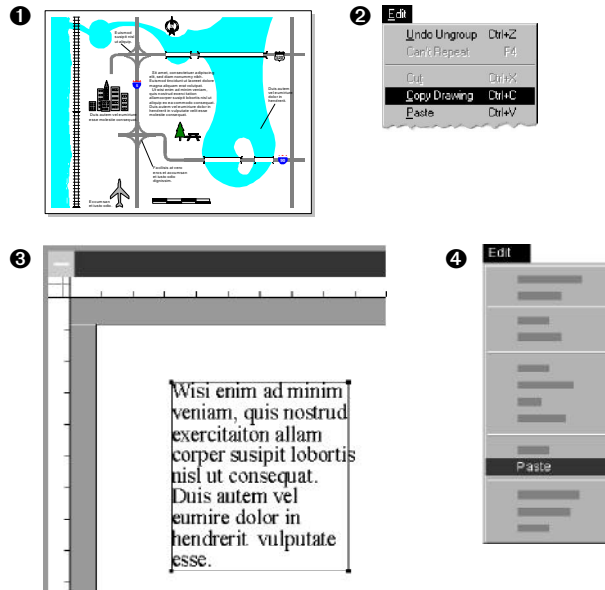
To create a Visio diagram within another program:

1. In the document created in the other program, choose Insert Object (or the equivalent command) from the appropriate menu.

2. In the Insert Object (or equivalent) box, click the option for creating a new file, under Object Type, choose Visio Drawing, then click OK.

3. In the Visio New box, select a template for the type of drawing you want to create.

4. Create the Visio diagram.

5. If Visio is running in its own window, shut it down. If it's running within the outside document, click somewhere in the document outside the Visio diagram.

6. To edit the Visio diagram from within the outside document, double-click the diagram.

Tip: You can also paste or link an existing Visio drawing from within another program. In the program's Insert Object (or equivalent) box, click the option for creating an object from an existing file, locate the Visio file, and paste or link it.

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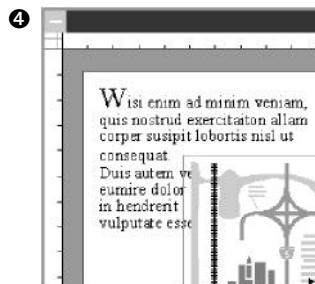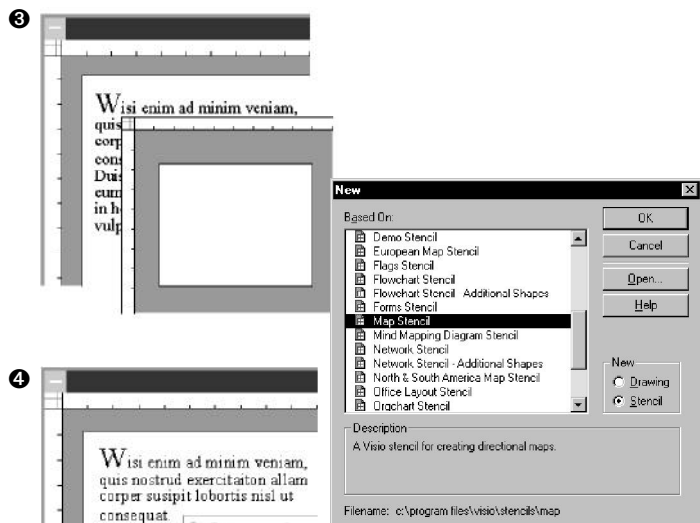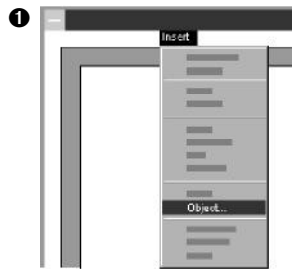
More ➤

To link a Visio file to another document:

1. In Visio, save the file you want to link.

2. To link the entire diagram, make sure nothing is selected. To link a specific shape, select that shape. To link several shapes, select the shapes and group them.

3. Choose Copy Drawing (or Copy, if you're linking selected shapes), and leave Visio running. Copy Drawing copies the entire document, including shapes on background pages and on foreground pages other than the current one.

4. In the other document, from the Edit menu, choose the command to link a file.

Tip: You can also link a Visio file by dragging and dropping it into another file (as long as the destination file supports OLE 2). Display the Visio and destination files side by side. Select the shapes you want to link, hold down the CTRL and SHIFT keys, and drag the shapes to the destination file.
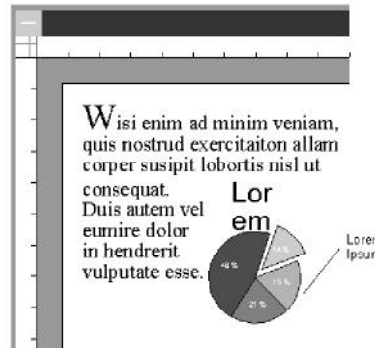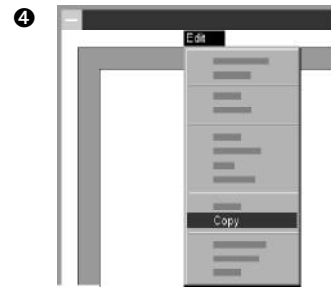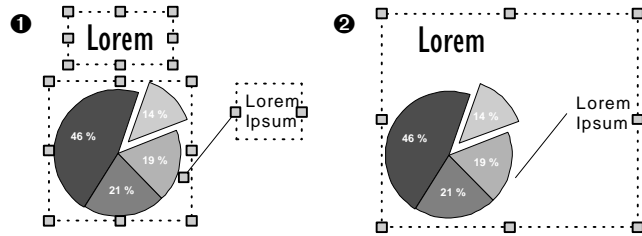
To export a Visio file into another format:

1. In Visio, select the shapes you want to export. If no shapes are selected, Visio exports a rectangular area just large enough to hold all the shapes on the current page.

2. From the File menu, choose Save As.

3. In the Save As box, choose the format you want, type a name for the exported file, then click OK.

Tip: To export (or paste or link) an area around a Visio drawing, in Visio, draw a rectangle around the area you want to export, paste, or link. Choose a fill style of None. If you don't want a border, choose a line style of None. From the Shape menu, choose Send To Back. Then, follow the steps for exporting, pasting, or linking.
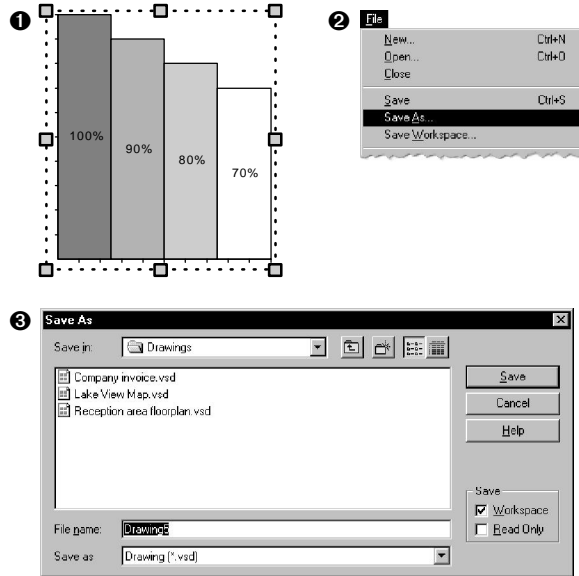
Export Visio files to these formats:

Adobe Illustrator (.AI)

Computer Graphics Metafile (.CGM)

Encapsulated PostScript File (.EPS)

Macintosh PICT format (.PCT)

Tag Image File Format (.TIF)

Windows Bitmap (.BMP or DIB)

Windows Metafile (.WMF)

Initial Graphics Exchange Specification (.IGS)

ZSoft PC Paintbrush Bitmap (.PCX)

PLACING INFORMATION IN VISIO

When you want to include objects created in other programs in Visio diagrams, you can choose among several methods. For example, you can paste a logo into a directional map you create in Visio or link an Excel spreadsheet to a Visio organization chart.

Copying and pasting
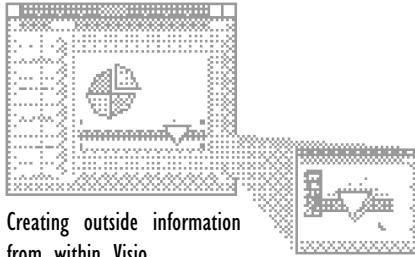
Creating outside information from within Visio
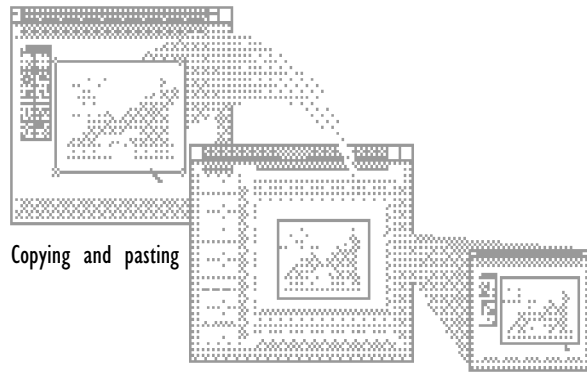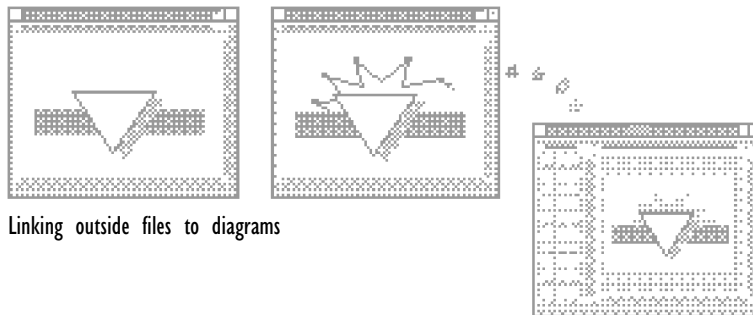
Linking outside files to diagrams

Importing outside information into Visio files
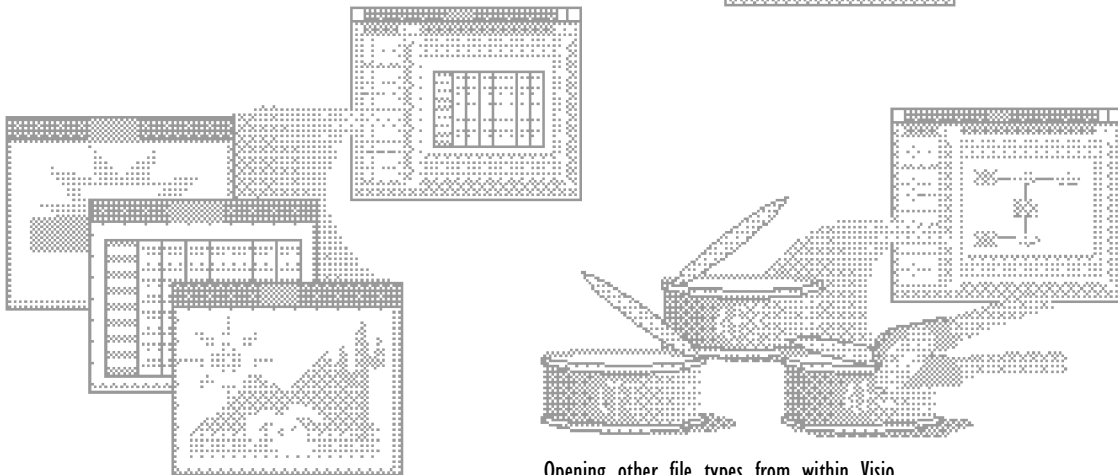
Opening other file types from within Visio

To	Do this	Conditions	Advantages
Place an outside object into a Visio diagram.	Copy and Paste. See procedure on page 214.	The other program must support the Windows Clipboard.	Almost all programs support copy and paste.
Be able to edit an outside object you've placed into a Visio diagram.	Copy and Paste. See procedure on page 214.	The object's program must support the Windows Clipboard and Object Linking and Embedding (OLE).	You can edit the outside object without leaving Visio. You can move the Visio file to another system without also moving the outside file.
Include an outside object in a Visio file where you're currently working.	Create an outside object from within Visio. See procedure on page 216.	The other program must support Object Linking and Embedding (OLE).	You don't have to exit or close Visio to create the outside object.
Place an outside object that you update frequently in a Visio diagram.	Link the outside object's file. See procedure on page 217.	The object's program must support Object Linking and Embedding (OLE).	When you update the original file, changes appear in the Visio file. The entire original file is not included in Visio, so file size remains relatively small.
Place an outside object you update frequently into a Visio diagram and into several other documents.	Link the outside object's file. See procedure on page 217.	The other program must support Object Linking and Embedding (OLE).	When you update the original file, changes appear in the copies in Visio and other documents. The entire original file is not included in Visio, so file size remains relatively small.
Bring files saved in a variety of formats into Visio.	Import the outside file. Open files created in other programs from within Visio. See procedures on page 220.	You must have the appropriate Visio import filters installed. Only certain types of files can be opened from within Visio.	You can bring objects into Visio that were created in programs you don't have access to. You can bring objects into Visio even if the programs that created them don't support Object Linking and Embedding (OLE).

For related information:

See online Help: press F1, click Search, click Index, then type "copying," "embedding," "linking," or importing."

To copy and paste outside information in a Visio diagram:

1. In the outside document, select and copy the information you want to paste.

2. In Visio, display the diagram where you want the information pasted.

3. From the Edit menu, choose Paste.

4. To edit the information from within Visio, double-click it.

Tip: If nothing happens when you double-click the information you've pasted, it means the outside application doesn't support OLE.
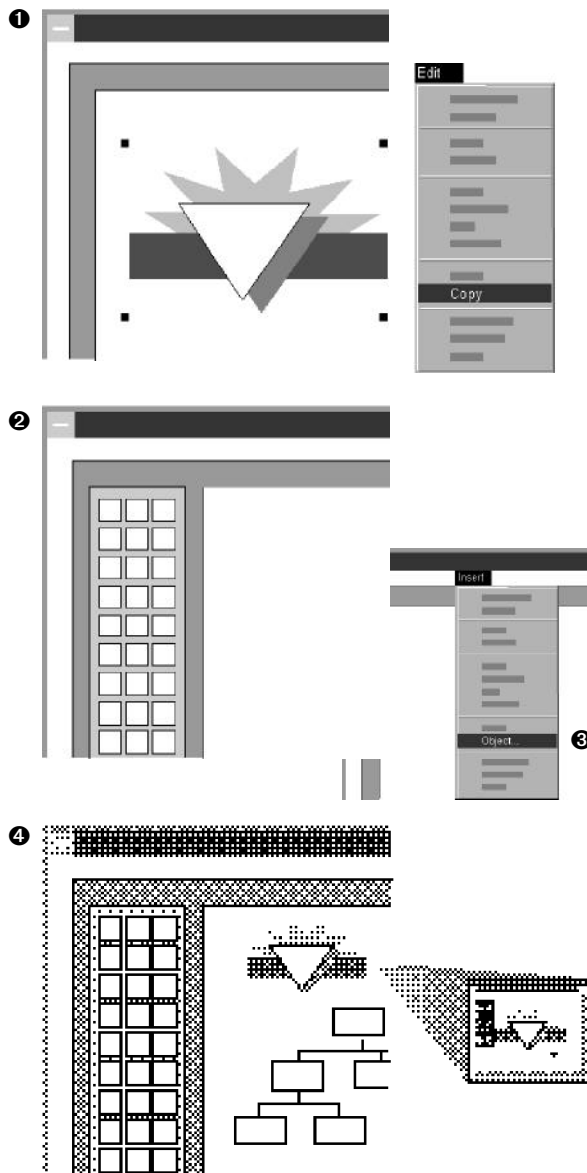
To copy and paste outside information in a particular format:

1. In the outside document, select and copy the information you want to paste.

2. In Visio, display the diagram where you want the information pasted.

3. From the Edit menu, choose Paste Special.

4. In the Paste Special box, click Paste, choose the particular format you want, then click OK.

Tip: You can also paste outside information by dragging and dropping it into a Visio file (as long as the outside information's program supports OLE 2). Display the outside and Visio file side by side. Select the information you want to paste, hold down the CTRL key, and drag the information into the Visio file.
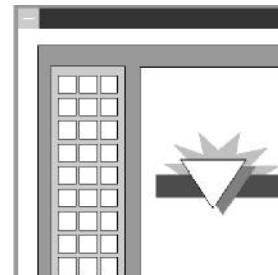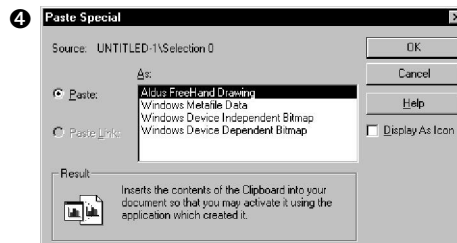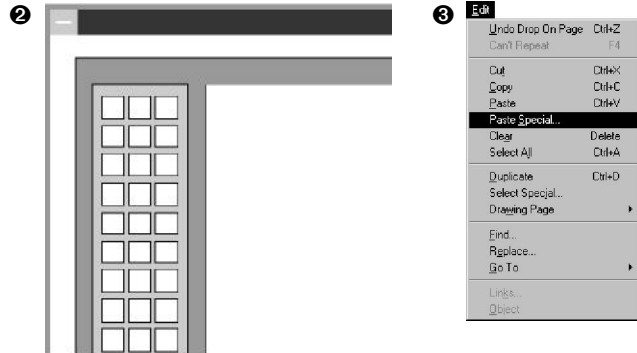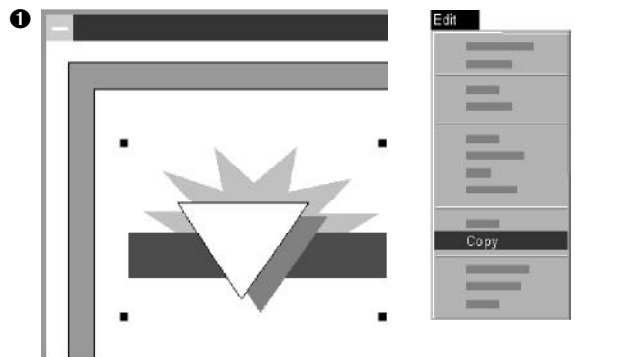
To create an object in another program from within Visio:

1. From the Insert menu, choose Object.

2. In the Insert Object box, check Create New.

3. From the Object Type list, choose the type of object you want to create, then click OK.

4. Create the object you want.

5. From the File menu in the object's program, choose Exit to return to Visio. The object is embedded in the Visio diagram.

Tip: You can also embed or link an existing object created in another program from within a Visio diagram. From the Visio Insert menu, choose Object. In the Insert Object box, click Create From File, click Link if you want to link the file, then type the path and filename for the file you want to embed or link.

For related information, see online Help: press F1, click Search, click Find, then type "creating objects."
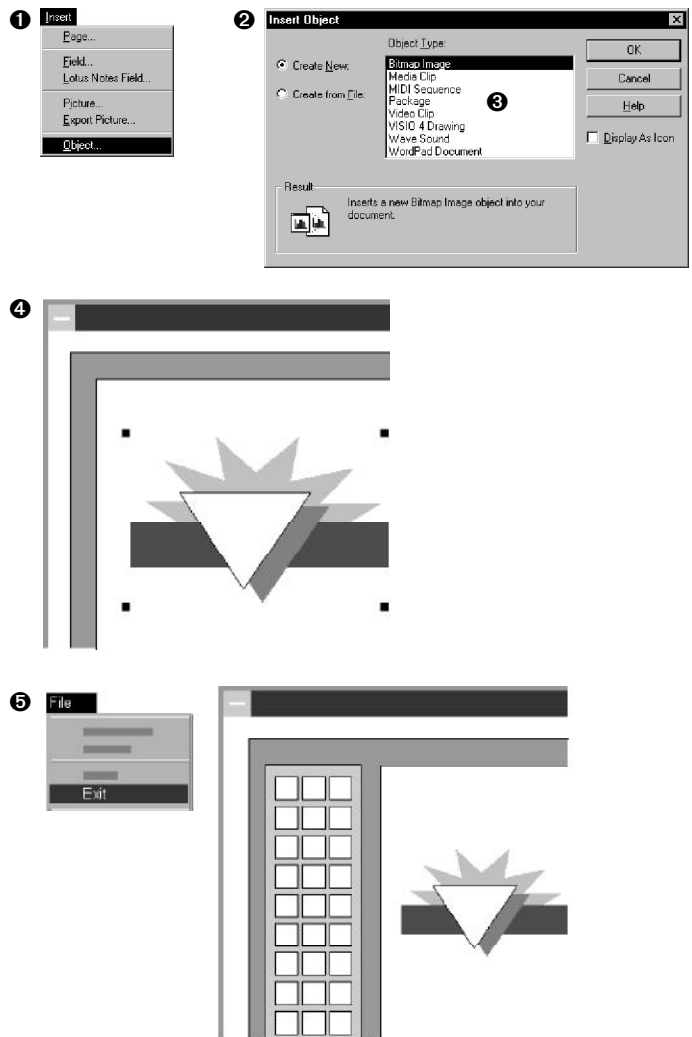
To link an outside file to a Visio document:

1. Save the outside file.

2. In the outside file, select the information you want to link.

3. Choose the command used by the outside file's program to place information on the Clipboard. (The command is usually Copy on the Edit menu.)

4. In Visio, from the Edit menu, choose Paste Special.

5. In the Paste Special box, check Paste Link, then click OK.

6. To edit the linked information from within Visio, double-click it.

Tip: You can also link an outside file by dragging and dropping it into a Visio file (as long as the outside file's program supports OLE 2). Display the outside and Visio files side by side. Select the information you want to link, hold down the CTRL and SHIFT keys, and drag the information into the Visio file.

For related information:
Managing Links

More ➤

Managing links between Visio and other files

Links consist of information about where to find linked files. For example, a link to an Excel file for a spreadsheet included in a Visio drawing might be C:\PROJECTS\BUDGETS\3RDQTR.XLS. If you rename, move, or delete the Excel file, Visio still tries to follow the link but can't.

To allow Visio to find linked files, you must keep links up to date. From within Visio, you can view, change, or break links. You can also decide whether to update linked information in Visio files automatically or manually.

Links Management

A   Choose the link you want to change.

B   Lists the path, filename, and type of file for the link chosen in A.

C   Click Automatic to automatically update linked information when you open the Visio file. Click Manual to update linked information by opening the Links box and clicking Update Now.

D   Click to break the chosen link. Visio converts the linked object to a Windows Metafile.

E   Click to change the path and filename to another file of the same format.

F   Click to open the linked file.

G   Click to manually update the linked information in the Visio file.

For related information, see online Help: press F1, click Search, click Index, then type "managing links."
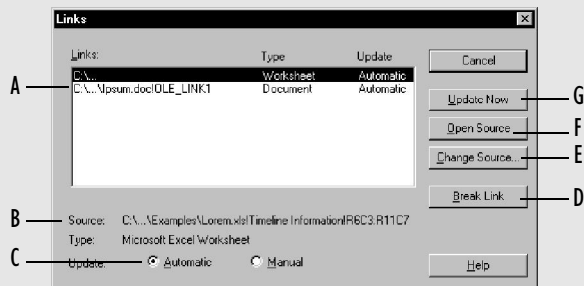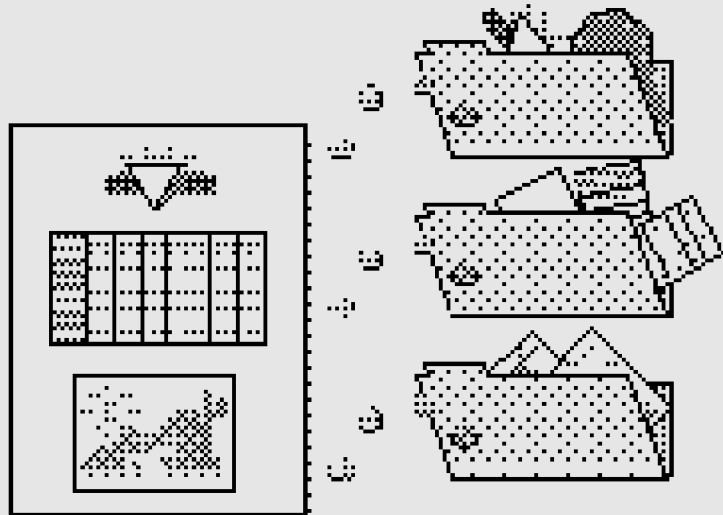
To edit a link:

1. From the Edit menu, choose Links.

2. In the Links box, under Links, choose the link you want to change.

3. Choose options to make the changes you want, then click Close.
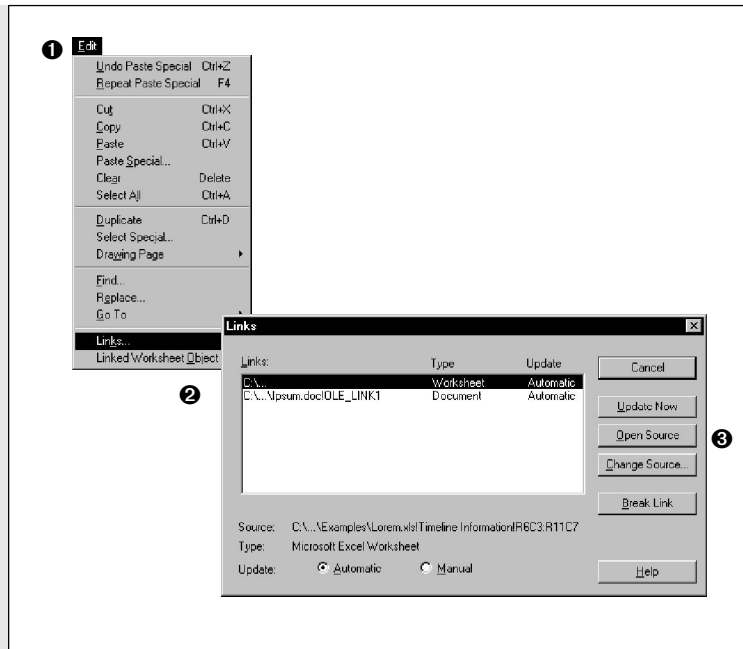
To manually update a link:

1. Update the linked file, then save it.

2. In Visio, choose Links from the Edit menu.

3. In the Links box, under Links, choose the link you want to update.

4. Click Update Now, then click Close.
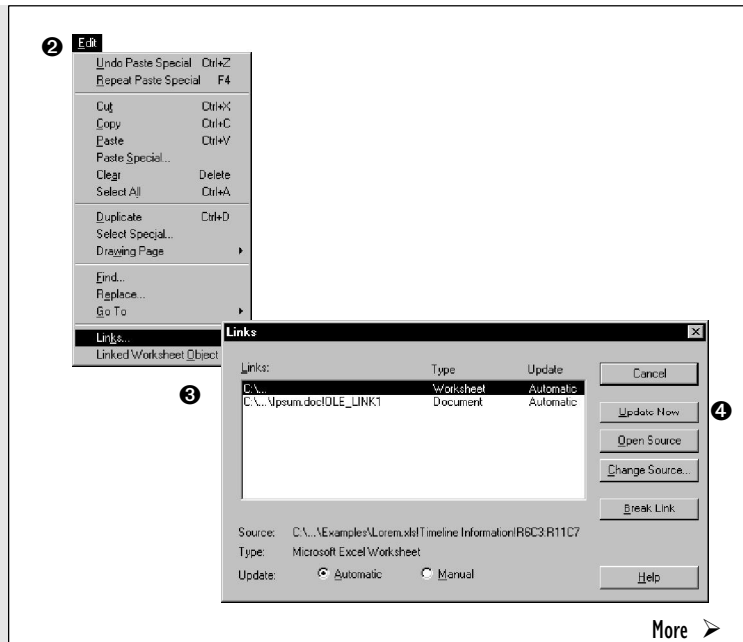
More ➤

To import a file into a Visio drawing:

1. From the Insert menu, choose Picture.

2. In the Picture box, choose the File Type you want to import, and locate the drive and folder containing the file.

3. From the File Name list, choose the file you want, then click OK.

4. If the EPS Import box appears, choose the import options you want, and then click OK.

EPS Import Options

A   Click to retain gradient fills.

B   Click to have Visio create a rectangle similar in color to the background in the original program.

C   Draws thick or patterned lines as polygons rather than using the line style and width capabilities of the display or printer driver.

D   Uses color exactly as specified in the original file.

E   Inverts all colors to create a photographic negative effect.

F   Inverts only black, white, and grays.

G   Converts all colors to shades of gray.

H   Converts all colors to shades of gray then inverts them.
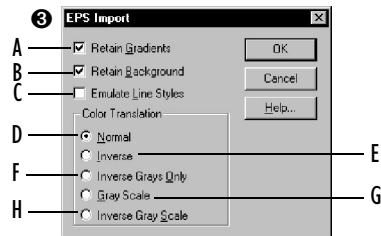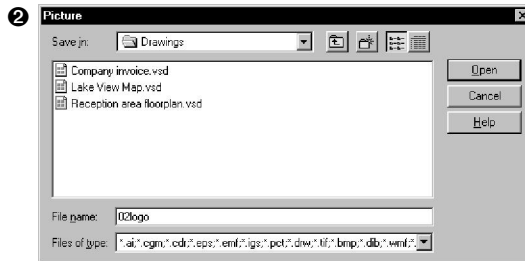
File formats Visio imports if you install all the available import filters:

Adobe Illustrator (.AI)

Computer Graphics Metafile (.CGM)

Encapsulated PostScript File (.EPS)

Macintosh PICT format (.PCT)

Tag Image File Format (.TIF)

Windows bitmap (.BMP or DIB)

Windows Metafile (.WMF)

ZSoft PC Paintbrush Bitmap (.PCX)

CorelDraw! 3.0, 4.0, 5.0 (.CDR)

Micrografx Designer

Initial Graphics Exchange Specification (.IGS)

To open selected file formats from within Visio:

1. In Visio, from the File menu, choose Open.

2. In the Open box, under Files Of Type, choose the type of file you want to open, then locate the drive and folder that contains the file.

3. From the File Name list, choose the file you want, then click OK.

4. In the Conversion Options box, choose the options you want, then click OK.
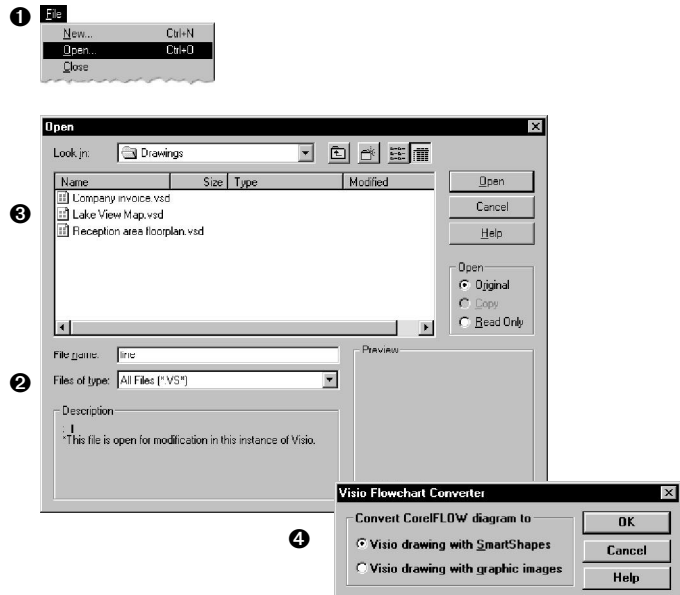
File formats you can open from within Visio:

ABC FlowCharter 2.0, 3.0, 4.0 (*.AF3, *.AF2)	Macintosh PICT Format (*.PCT)
CorelFLOW 2.0 (*.CFL)	Tag Image File Format (*.TIF)
Adobe Illustrator (*.AI)	Windows Bitmap (*.BMP, *.DIB)
Computer Graphics Metafile (*.CGM)	Windows Metafile (*.WMF)
Encapsulated Postscript File (*.EPS)	ZSoft PC Paintbrush Bitmap (*.PCX)
Enhanced Metafile (*.EMF)	More ➤

Modifying objects placed in Visio

While you can't rotate, flip, or add text to embedded, linked, and imported objects in Visio, you can:

- Size, crop, and pan them.

- Change the line style and color of the area between the object and its borders.

- Convert some outside objects to other file formats or to Visio shapes.

If you convert a linked object to a Visio shape, you break the link between the object and its original file. Edits to the original file will no longer affect the object in Visio.

Any file you import, except a bitmap, is converted to a Windows Metafile in Visio. Bitmaps are imported as bitmaps.

For related information:

See online Help: press F1, click Search, click Find, then type "editing an object."
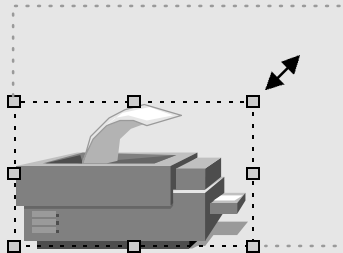
Sizing an object
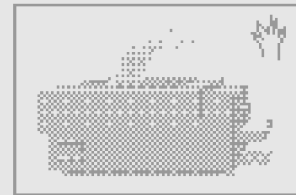
Panning an object
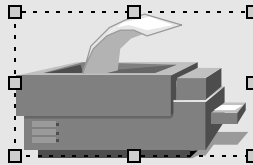
Change the line style of an object's border and the color of the area between the object and the border.

Modifying Outside Objects

To	Use this tool		Do this
Size or change the dimensions of an object		Pointer tool	Select the object. Drag a side or corner selection handle until the object is the size you want.
Crop an object		Cropping tool	Select the object. Drag a selection handle until the object's borders are the size you want. Visio doesn't delete the part of the object you crop so you can recrop if you want.
Pan or reposition an object within its borders		Cropping tool	Select the object. Point inside the object and press the left mouse button. Drag until the object is positioned the way you want.
Format the line and fill of the area between an object and its borders		Pointer tool	Select the object. From the Format menu, choose Line or Fill, then choose the formatting options you want.
Convert an OLE object to another format		Pointer tool	Select the object. From the Edit menu, choose the command provided by the OLE object's original program for converting to other formats. (The command is usually Convert.)
Display an OLE object as an icon		Pointer tool	Select the object. From the Edit menu, choose the command provided by the OLE object's original program for displaying as an icon. (The command is usually Display As Icon.)
Convert an object to a grouped Visio shape		Pointer tool	Select the object. From the Shape menu, choose Grouping, then choose Convert To Group.
Convert an object to several individual shapes		Pointer tool	Select the object. From the Shape menu, choose Grouping, then choose Ungroup.

USING THE BINDER

Use the Microsoft Binder when you want to include a Visio document in a report or presentation that also includes other documents, such as Word files, Excel spreadsheets, or PowerPoint slides.

Once all the related documents are gathered into the Binder, you can work on them as a group. For example, you can check the spelling of all the documents at once and assign consecutive page numbers for the whole report. At the same time, you have the option of working on any one of the documents individually.
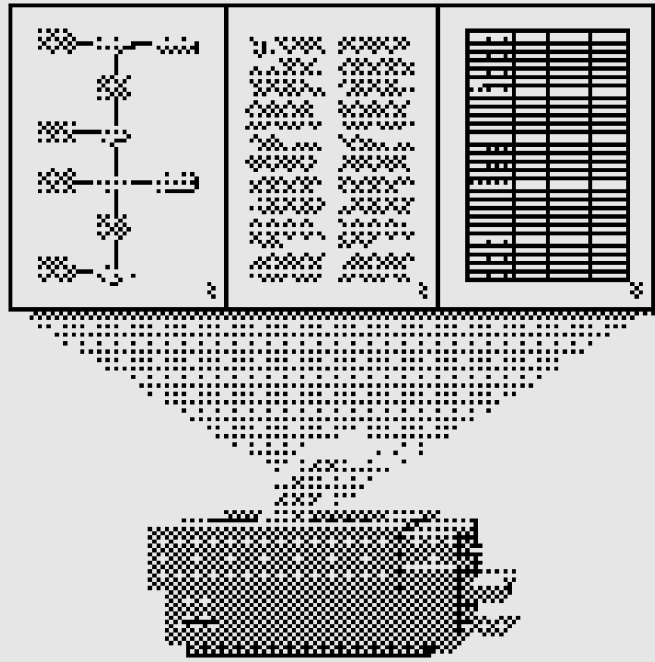
You can print an entire binder or one document in a binder.

To include a Visio document in the Microsoft Binder:

1. In Windows 95, from the Start menu, choose Programs, then choose Microsoft Binder.

2. Drag the Visio diagram you want to add into the left pane of the Binder window.

3. From the Binder File menu, choose Save Binder As to save the Binder file.

4. For information about how to work with documents in a Binder, see Microsoft Binder Help.

Tip: You can also add a blank Visio diagram to the Binder. From the Binder Section menu, choose Add, choose Visio Drawing from the list, then click OK.

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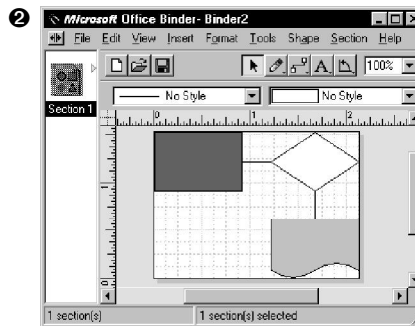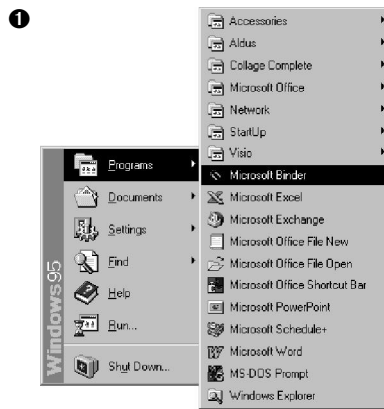
Working Efficiently in Visio

Use these techniques to speed up the process of creating diagrams and make it easier to update and revise your work.

Preview your diagrams before you open them

In the Windows 95 Explorer, right-click a file icon, then choose Quick View from the shortcut menu.

For related information:

Make your diagrams easier to track and find

Fill out the fields in the Properties box when you save your file for the first time. The description information appears at the bottom of the Open box.

For related information:

Get information about shapes when you need it

Right-click a shape on the stencil or on the drawing page, then choose Shape Help from the shortcut menu.

Quickly change shape appearance, associate data with shapes, or run special Wizards

In most Visio templates you can right-click the drawing page or a shape and choose an option from a shortcut menu.

Speed up tasks you do frequently

Learn the keyboard shortcuts for tasks, such as zooming and duplicating shapes, that you perform often .

For related information, see online Help: click Contents, double-click Reference, double-click Keyboard Shortcuts, then double-click Command shortcuts.

Experiment with your diagrams without being afraid of ruining them

Remember the Undo command on the Edit menu. Since Visio supports ten undos, you can try several variations and then undo them all to return to your original diagram.

For related information, see online Help: click Search, click Index, then type "undo."

Use guides to align shapes and move several shapes at once

Drag guides onto the drawing page and glue shapes, such as a row of plants in an office plan, to them. When you move the guide, you'll also move all the shapes.

For related information:
Snapping and Gluing Shapes 30
Positioning Shapes on the Page 92

Make one set of changes that affects several shapes at once

Shift-click shapes or drag a selection net around them to select and edit several shapes at once.

For related information:
Dragging and Dropping Shapes 26

Move a group of shapes without changing their relationships to one another

Shift-click shapes or drag a selection net around them to select several shapes at once.

For related information:

Make it easier to work on shapes you use together regularly

Group related shapes into one composite shape. Once shapes are grouped, you can edit them all at the same time or subselect individual shapes and edit them individually.

For related information:

Change the way several shapes look or behave without having to change each shape individually

Create a style that includes line, fill, and text formatting, then apply that style to as many shapes as you want. If you revise the style, you'll also change all the shapes that use the style.

For related information:

Make changes to a master shape on the drawing file stencil. Changes you make to the master are reflected in every instance of that master you've used in your diagram.

For related information:

Work on one category of shapes, such as the chairs in an office layout, without being distracted by the other shapes in your diagram

Place each category of shapes on a separate layer. Then, you can view, edit, and print each category separately.

For related information:

Turn a shape you've modified or created from scratch into a master shape on a stencil

If you use a shape a lot, it's best to make it a master shape. Then, you can drag and drop it whenever you need to use it. You can create your own shapes and stencils or modify one of the stencils that comes with Visio.

For related information:

Quickly edit text in a diagram

Using Visio's Spell-checker and Find/Replace commands, you can spell-check and find/replace independent text, text in shapes, text on stencils, text in data fields, and the text you entered in the Properties box.

For related information:

Make shapes you draw yourself easier to modify

With the pencil tool, you can add vertexes to shapes you draw using Visio's drawing tools. Since you can drag vertexes to change the way shapes look, the more vertexes you add, the more finely you can control shape appearance.

For related information:

Set up your diagrams to generate reports, such as inventories or cost comparisons

In Visio, you can associate the shapes you use in a diagram with properties. For example, in a network diagram, you can associate each shape with a serial number. Or, in a flowchart, you can associate each process with cost, duration, and resources information. Once shapes have properties, you can easily generate informational or mathematical reports.

For related information:

Build special behavior into shapes to make them easier and more convenient to use

Using Visio's SmartShape Wizard, you can easily change the way shapes behave. For example, you can control the way parts of a shape expand when the whole shape is stretched or change the way a shape's text block expands when you enter text.

For related information:

Prepare your diagram to incorporate it into another document

You can set Visio drawing size to equal the size of rectangle that tightly encloses the shapes on the drawing page. That way, when you paste the diagram into another document, you eliminate extra white space around its edges.

For related information:

Plan ahead with Visio diagrams you intend to present in a slideshow

Slides usually have dark backgrounds so shapes included on slides show up better when the shapes have dark background and light-colored text.

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