SmartDraw®

User's Guide

Version 2009

SmartDraw.com

Getting Started

Welcome to SmartDraw!

SmartDraw is the easy-to-use program that lets anyone draw great-looking charts, diagrams, presentation graphics, and more. You don't have to be an artist to get great results with SmartDraw.

Ready-made SmartTemplates help you get started and thousands of built-in SmartDraw symbols provide a nearly unlimited selection of objects and graphics you can use in your drawings. SmartDraw automatically aligns your shapes, symbols, lines, and text for a perfect appearance and the ready-made Design Themes can create a professional-looking color scheme for your entire drawing with just a click of the mouse.

SmartDraw works as a stand-alone program, and also with Microsoft Office and other programs that support Object Linking and Embedding (OLE). You can insert a SmartDraw drawing directly into Microsoft Word or PowerPoint with a simple copy-and-paste. You can also insert Office documents, like graphs, equations, and spreadsheets into your SmartDraw drawings.

Installing SmartDraw

Before you can run SmartDraw, you must install it by running the **Setup Program**. There are two ways to get the setup program file:

By downloading over the Internet

On a CD

Internet Download

Anyone can freely download the SmartDraw Trial Edition from www.smartdraw.com. You can also download full versions of any SmartDraw program that you have purchased.

In either case, the file you download to your computer is an *installation* program. You must *run* it to install SmartDraw onto your system.

The simplest way to do this is to download the file to your *desktop*. This creates an icon on your Windows desktop. You can then run the install program by double clicking on its desktop icon. Alternately, you can run the installation program using the **Run** command under the Windows Start menu.

CD

If you purchased SmartDraw on a CD, all you have to do is put the disc in your computer's CD drive, and the setup program, **setup.exe,** will start automatically. If this does not happen, you must run **setup.exe** manually.

The easiest way to do this is to use the **Run** command, found by pressing the Windows Start button. You will be prompted for the name of the program you want to run. If you placed the SmartDraw CD in your computer's Drive D, for example, just type:

```
D:\SETUP
```

Then simply follow the directions displayed by the Setup program.

Installing SmartDraw on a Network

To install SmartDraw on a network, simply install it on the server in the normal way described above. For each client that will have access to the server, create a shortcut (or icon) for SmartDraw on the client system and run the program once. SmartDraw will install itself properly on the client system.

You must have a **workgroup license** to share one copy of SmartDraw between multiple users on a network.

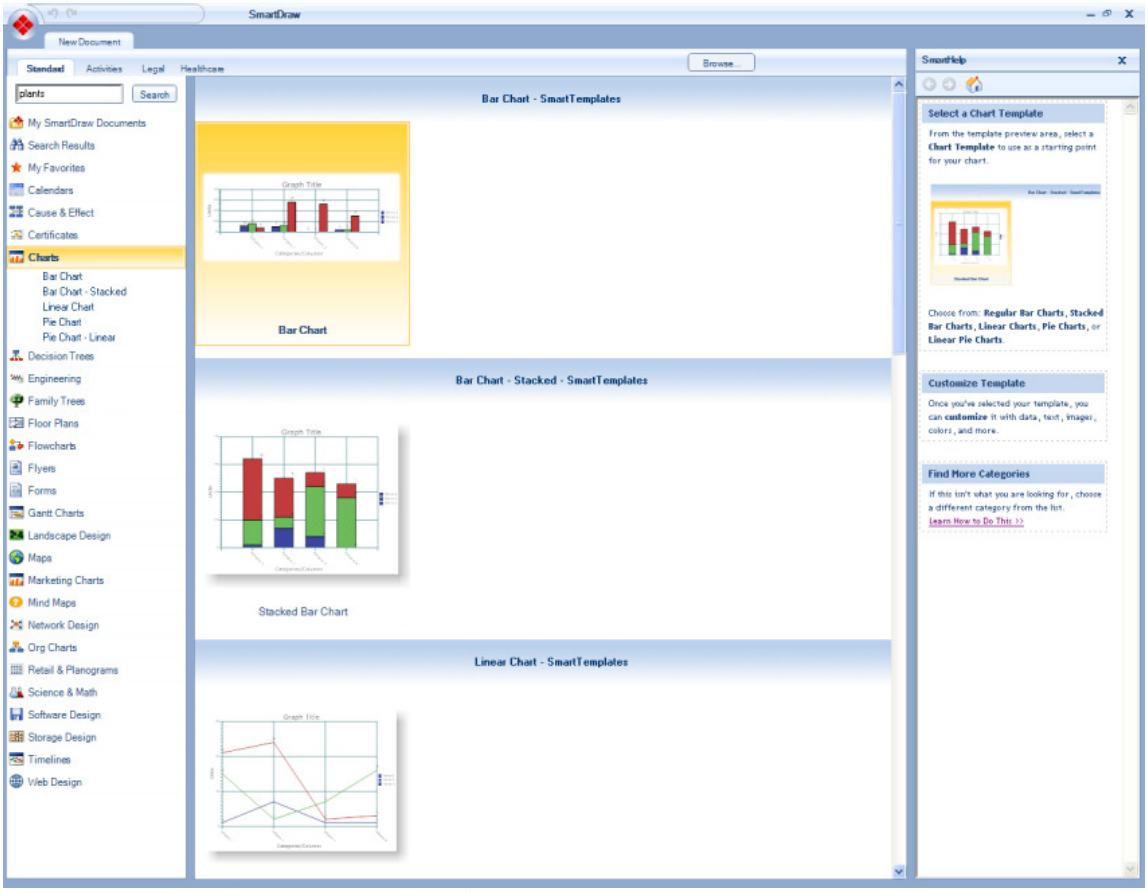
SmartDraw will not run from a network drive unless you have a workgroup license.

SmartDraw counts the number of different users that have accessed the program on the network (not including the server itself) and limits the number of unique users to the number of licenses you have purchased. If a user has accessed the program but no longer needs to use it, you can free that user's license using the network administration features under the **License** command.

See SmartDraw Licenses for more information

The Document Browser

The Document Browser is the first screen that appears each time you run SmartDraw.



The Document Browser

In the document browser you can do two things:

Create a New Document

Open an Existing Document

Creating a New Document

By default, when SmartDraw is opened, the Document Browser shows a list of drawing **Categories** in the left column, with thumbnail images of **SmartTemplates** from the currently selected category in the preview area, located at the center of the screen.

You can browse through the categories by clicking on them in the left column, or Template List.

Open a SmartTemplate to begin a new drawing by clicking on its image in the preview area.

Opening an Existing Document

Usually when you start SmartDraw the Document Browser will show your most recently saved **Existing Documents** to choose from. If you want to open an existing document, but the Document Browser is showing the New Document screen instead, click **My SmartDraw Documents** at the top of the Template List.

Click on the thumbnail image of any of the existing documents to open it.

If the document you want is not displayed, you can click the **Browse** button to find it on your computer.

Getting Help

There are three basic Help resources in SmartDraw:

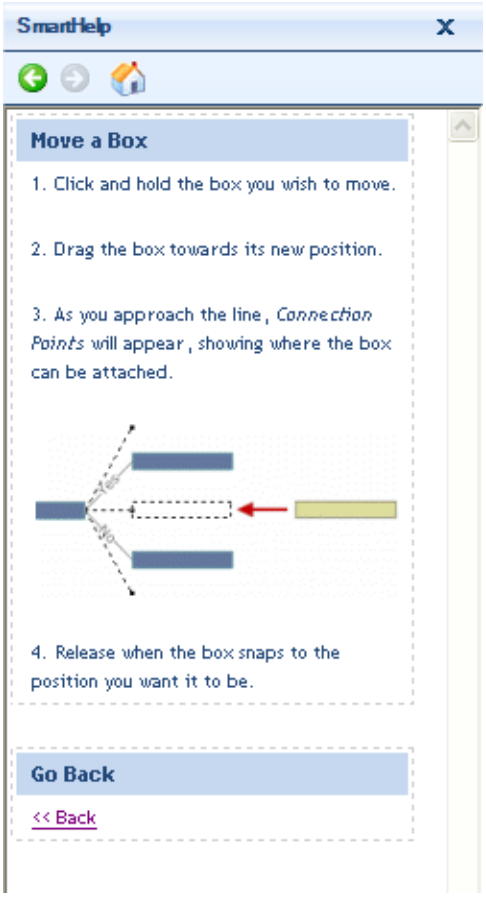
SmartHelp Panels

The Help Tab

Help in Dialogs

SmartHelp

As you work, SmartDraw offers context-sensitive instructions in the SmartHelp panel at the right side of the screen. To close that panel, click the close button (X) in its title bar. To reopen it, click the SmartHelp button at the top right corner of the Drawing Area (where the SmartHelp panel normally appears.)



A SmartHelp Panel

The Help Tab

The Help Tab, at the top right side of the Main Toolbar, offers Help and information about your SmartDraw program.

User Guide - This User Guide, which you are reading, provides extensive, detailed documentation of SmartDraw's functions. Unlike the SmartHelp panels at the right side of the Drawing Area, which are "How to Draw" tutorials for specific kinds of drawings, this User Guide explains the technical functions common to the entire program.

Tech Support Provides information on getting technical support from SmartDraw.com.

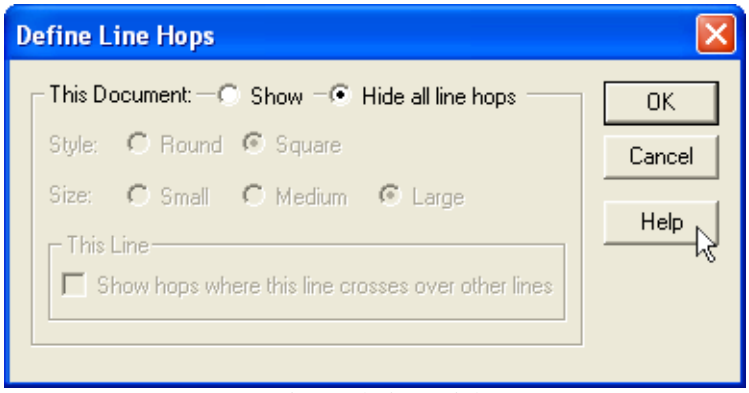
Update checks for program updates, fixes, or new program content.

About displays information about your particular copy of SmartDraw, including its version number and serial number.

License allows you to view and manage your SmartDraw license(s).

Help in Dialogs

Dialogs are the little screens that pop up to ask you a question, provide information, or take input from you. All dialogs contain a **Help** button. Pressing this button, or typing the **F1 key**, opens the Help system to the section that describes that dialog's functions.



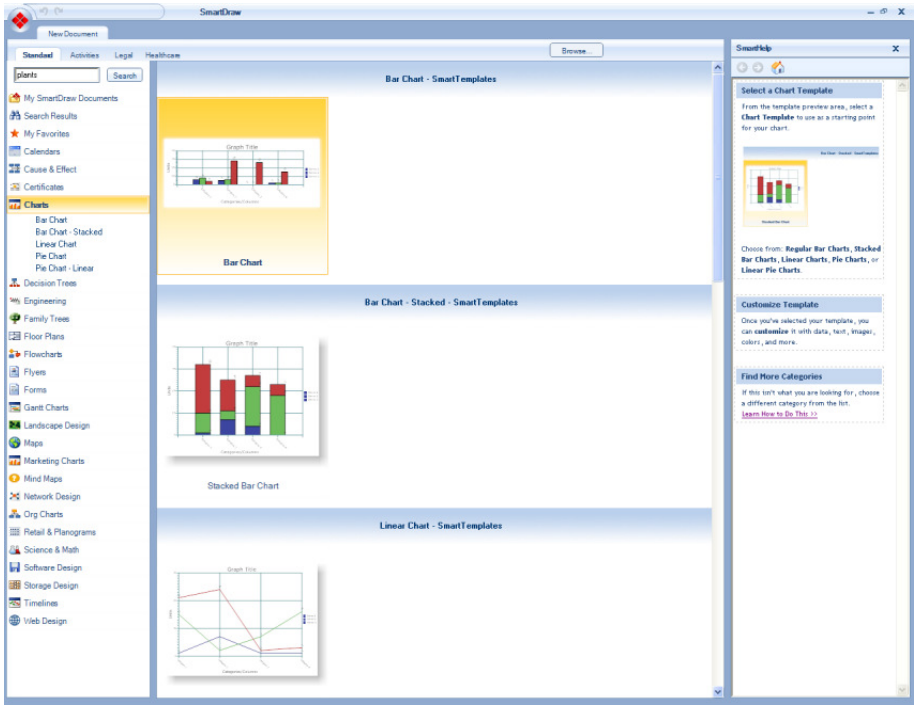
Getting Help in a Dialog

Creating a New Document

When SmartDraw is already Running

To create a new document when the SmartDraw program is already running, click the **SmartDraw Button** in the upper lefthand corner, then click **New (Ctrl + N)**.

This will opens the Document Browser showing you the SmartTemplates you can use to create a new document.



Select a category in the left column Template List and then click on a SmartTemplate thumbnail image in the preview area to open it.

The new document will open in a new instance of the SmartDraw program window with its own program button in the Windows Taskbar at the bottom of your screen.

When You Open SmartDraw

Usually when you start SmartDraw, the **Document Browser** will show your most recently saved **Existing Documents** to choose from.

If you want to create a **new document**, click on a **Category** on the **Template List** of the Document Browser window.

The Document Browser will then display the thumbnails for that **Category**, where you can choose a SmartTemplate to start your new document.

Closing and Saving Documents

Closing Documents

You may close the current document by using the Close command on the **More** menu under the Document tab, or by clicking the close button (X) on the Drawing Area Toolbar.

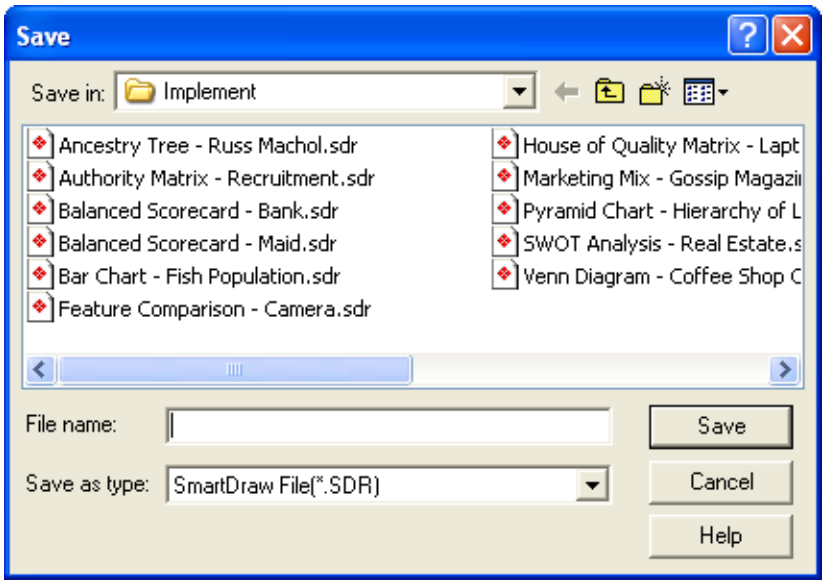
Clicking the Close Button (X) at the top right of the entire program window will exit that instance of the entire program, not just the current document.

If you have made changes since you last saved your drawing, you are reminded to save your document before the window closes.

Saving Documents

You can save drawings to a file on your hard disk by clicking on the **SmartDraw Button** in the top left corner of the screen, then selecting the Save or the Save As command from the menu.

New drawings must be given a name before they are saved. You do this with the standard Save Dialog you see in all Windows programs.



The Save Dialog

For drawings that have been saved, and already have a file name, the **Save As** command can be used to save the drawing to a different file name. The **Save** command, by contrast, always saves the drawing to the same file name.

Choosing **Save as Template** from the **SmartDraw Button** menu saves the current drawing as a SmartDraw Template. This is the same as a normal file but with the extension SDT. When template files are opened, an untitled copy is made and the template is left unopened and unaltered. When you save a file as a template, your original drawing is also preserved with its current .SDR file name.

Documents and Windows

Each time you open a SmartDraw document, it opens a new *instance* of the SmartDraw program, with its own **Program Button** in the **Windows Taskbar** at the bottom of the screen. (In this way it behaves just like Microsoft Word, Excel, and other Office programs).

To switch between different open SmartDraw documents, click the Taskbar button for the one you want to make **Active** and view on the screen.

All program commands and actions apply only to the drawing in the currently Active SmartDraw program window.

Right Mouse Button Menus

Clicking with the right mouse button in the Drawing Area displays a **context-sensitive** menu which is specific to the area of the screen or the object that you clicked on.

The right-click menus provide convenient shortcuts to many of the features found on the Toolbars.

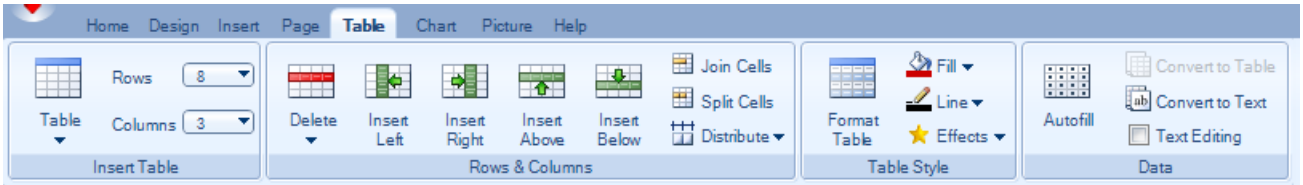
The Main Toolbar

The Main Toolbar lies at the top of the SmartDraw program window. It consists of **Tabs** containing ***Groups*** of commands, with the group name indicated on a **Group title bar** below the command buttons.

Dialog Launcher If the **Group title bar** contains this, you can click on it, which causes a dialog with more options to appear.

The Main Toolbar

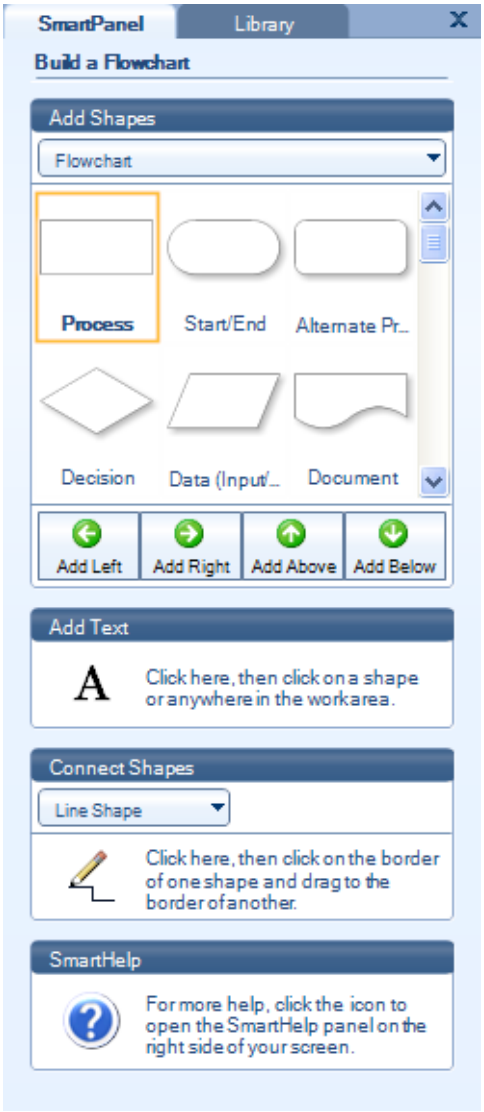
Tabs, such as *Home* and *Table*, appear at the right side of the toolbar depending on which tab is selected.



The Table Tab

The SmartPanel

The **SmartPanel** lies at the left side of the **SmartDraw Program Window**, and contains tools specific to a particular kind of template, such as Flowcharts.



The Flowchart SmartPanel

The SmartDraw Button

 Clicking on the **SmartDraw Button**, located in the top left corner, provides you with a menu of options.

 **New** (Ctrl+N) - Open the template selection screen to begin a new document.

 **Open** (Ctrl+O) - Choose from a list of previously saved documents to open.

 **Save** (Ctrl+S) - Save your document.

 **Save As -** Save the document using a different file name or format.

 **Save As Template -** Save the document as a SmartDraw template.

 **Print** (Ctrl+P) - Print your document. Displays the Print Dialog to select the printer, number of copies, and other properties before printing.

 **Print Preview** - See how your printed document will look.

 **Export as Graphic -**Export drawings in a number of common graphics formats, such as JPG, EMF and many others.

 **Email -** Open a new email message in your default email program and automatically attach the current SmartDraw document.

 **Publish to Web -** Share files and publish your SmartDraw documents as web pages.

 **Spelling -** Change the way SmartDraw checks the spelling in your documents.

 **Libraries -** Open, create, or automatically build symbol libraries.

 **SmartDraw Options -** Set the properties (such as line linking and shape linking) of your document, and general SmartDraw options.

Select New Template - Go back to the Document Browser to select a different template.

File Conversion Wizard - Automatically convert files from other programs into SmartDraw files.

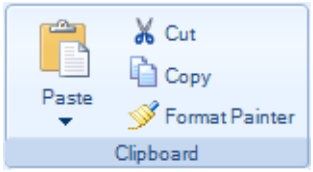
Close Document (Ctrl+W) - Close this document. Does not close other open SmartDraw documents.

Close SmartDraw (Alt + F4) - Quit the entire program.

The Home Tab

Each of the Groups in the Home tab has sets of commands represented by buttons and menus.

The Clipboard Group



Click the arrow below **Paste** for more options:

- Paste (Ctrl+V) - Paste the last objects that were cut or copied (from SmartDraw or another program) onto this page.

- **Paste Special -** Choose which method to use in pasting an object from another program.

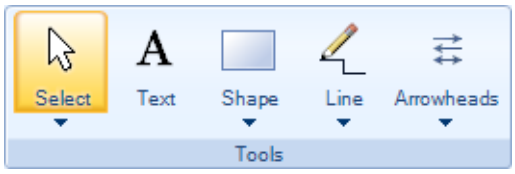
- **Duplicate -** Make a duplicate copy of the selected object or objects.

Cut (Ctrl+X) - Delete the selected object or objects from the page.

Copy (Ctrl+C) - Copy the selected object or objects so they can be pasted somewhere else.

Format Painter- Copy the formatting from one object or block of text and apply it to another.

The Tools Group



Select Tool - Choose to select Multiple Objects, select all Objects, all Shapes, or all Lines in the document.

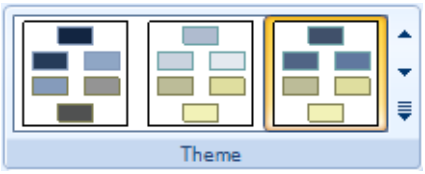
Text Tool - Click on a shape to open it for text entry, or in the background to create a new Background Text Object.

Shape Tool - Click in the drawing to add the currently active shape. To change the currently active shape, click the down arrow below the tool and select a new one from the menu.

Line Tool - Use the pencil cursor to draw a line. You can change the type of line the tool draws by clicking the down arrow to its right and choosing from the menu.

Arrowhead Tool - Add arrowheads to a selected line, or set the default arrowhead style for future lines.

The Theme Group

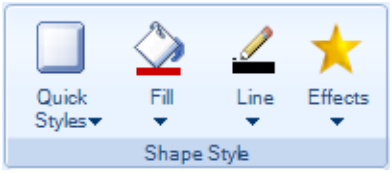


Use a **Theme** to change the entire look of the document with a single click.

Scroll Up/Down Buttons - Scroll up or down to view more themes.

Open Gallery Button - Select a Theme from the gallery.

The Shape Style Group



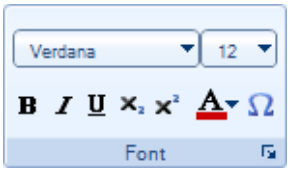
Quick Styles- Apply a predefined style to selected objects.

Fill - Fill a selected object with a color, texture, or gradient.

Line- Change the thickness, fill, or style of a line.

Effects - Apply special effects like glow and shadow to selected objects

The Font Group



Font - Change the font for a selected object or block of text.

Font Size - Change the font size for a selected object or document.

Bold - Make the selected text bold.

Italic - Italicize the selected text.

Underline - Underline the selected text.

Subscript - Make the selected text a subscript.

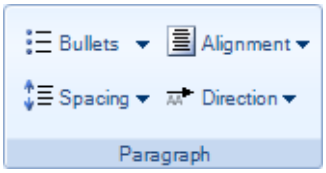
Superscript - Make the selected text a superscript.

Text Color - Change the color of selected text.

Insert Symbol - Insert a standard text symbol into your drawing or into a selected object.

Font Dialog Launcher - Open the Font dialog for further customization of text in your document.

The Paragraph Group



Bullets - Add bullets to selected text.

Alignment- Align the selected text, or the text within a selected object. (Note: Depending on your screen width, you may see six separate alignment buttons, or one button with a drop-down list of six options.)

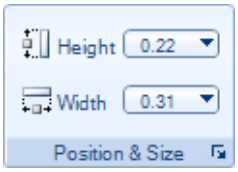
Spacing - Increase or decrease the spacing between lines of text.

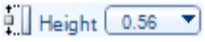
Direction - Change the orientation of text one a selected line.

The Design Tab

Each of the Groups in the Design tab has sets of commands represented by buttons and menus.

The Position & Size Group



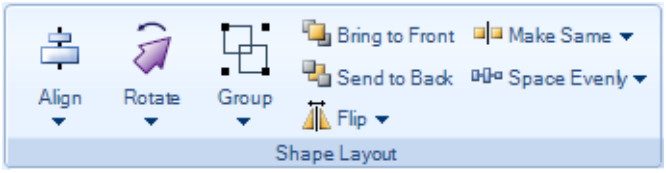


Height Menu - Change the height of a selected object.

Width Menu - Change the width of a selected object.

Dialog Launcher - Open a dialog to edit position and size.

The Shape Layout Group



Align - Align the edges of selected objects with a target object (the last one selected).

Rotate - Rotate an object or group of selected objects.

Group - Group or Ungroup selected Objects.

Bring to Front - Bring the selected object or objects to the front of all other objects on the screen.

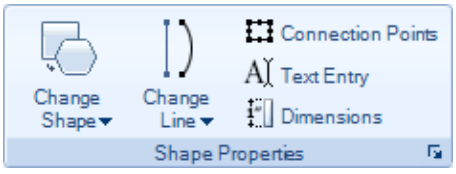
Send to Back - Place the selected object or objects behind all other objects on the screen.

Flip - Flip the object around its horizontal or vertical axis.

Make Same - Make selected objects the same size in width, height, or both.

Space Evenly - Space selected objects evenly on the page, vertically, horizontally, or both.

The Shape Properties Group



Change Shape - Select from a menu:

- **Change Shape** - Choose a new shape for the selected objects.

- **Edit Shape Outline** - Manually adjust a selected shape's outline.

Change Line - Select from a menu:

- **Change Line Shape** - Select a new shape for the selected line.

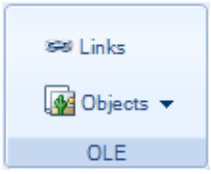
Connection Points - Change the points at which a line or another shape can anchor to the selected shape.

Text Entry - Open a dialog providing several types of options for entering text into shapes.

Dimensions - Open a dialog with options for how and when the dimensions of the selected object(s) are displayed.

Dialog Launcher - Open a dialog with options for resizing, linking, printing, and more.

The OLE Group



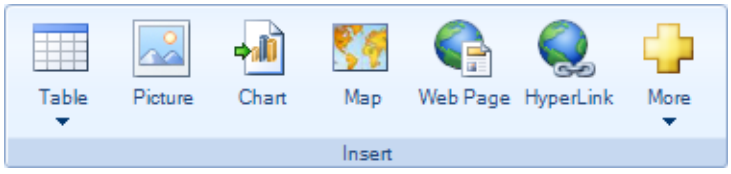
Links - Manage linked OLE objects in your document.

Object - Manage an OLE object that has been imported from another program to SmartDraw.

The Insert Tab

The Insert Group in the Insert tab has a set of commands represented by buttons and menus.

The Insert Group



Insert Table - Insert a table into your drawing or into a selected object.

Insert Picture - Insert a picture into your drawing or into a selected object

Insert Chart - Insert a chart into the work area.

Insert Map - Import a Map Powered by Google.

Insert Web Page - Import a Web Page into the work area.

Insert Hyperlink - Add a hyperlink from a selected object to a webpage, document, program, or SmartDraw file.

More - Insert other kinds of objects into your drawing.

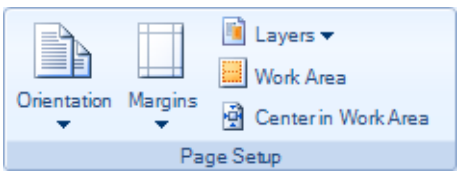
The Page Tab

Each of the Groups in the Page tab has sets of commands represented by buttons and menus.

The Page Style Group

Background - Change the background color (or texture or picture) for the document.

The Page Setup Group



Orientation - Switch between portrait and landscape page layouts.

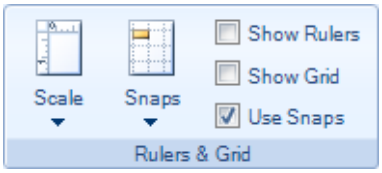
Margins - Set the margins for the pages in your document.

Layers - Add layers to your document, or change the properties of layers.

Work Area - Control the number of pages in the document.

Center in Work Area - Center the entire drawing on the page, or on multiple pages.

The Rulers & Grid Group



Scale - Set the scale for your document.

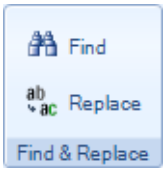
Snaps - Select how an image anchors to the work area grid.

Show Rulers **Show/Hide Rulers** - Make the rulers at the edge of the drawing area visible or invisible.

Show Grid **Grid** - Make the invisible grid visible.

Use Snaps **Use Snaps -** Determine whether objects snap to the grid.

The Find & Replace Group



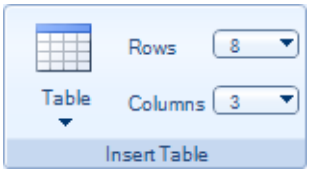
Find - Search for words or phrases used in the text of your document.

Replace - Search for words or phrases used in the text of your document, then replace each occurrence with a new word or phrase.

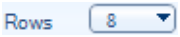
The Table Tab

Each of the Groups in the Table tab has sets of commands represented by buttons and menus.

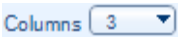
The Insert Table Group



Insert Table - Insert a table into your drawing or into a selected object.

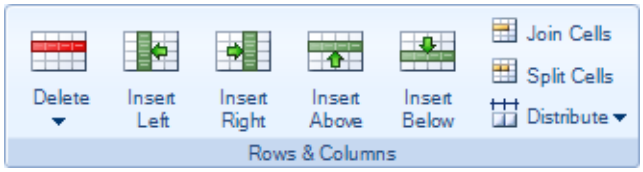


Number of Rows - Select a number from the menu.



Number of Columns - Select a number from the menu.

The Rows & Columns Group



Delete Row /Column - Delete the contents of a row or column, or completely remove the row or column from your table.

Insert Left - Insert a column to the left of the selected cell.

Insert Right - Insert a column to the right of the selected cell.

Insert Above - Insert a row above the selected cell.

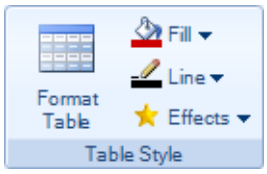
Insert Below - Insert a row below the selected cell.

Join Cells - Join selected table cells into a single cell.

Split Cells - Split a selected table cell (or cells) into two cells.

Distribute - Space rows or columns evenly.

The Table Style Group



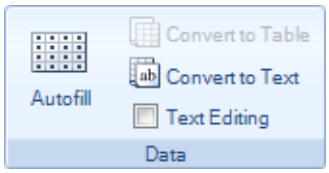
Format Table - Apply advanced formatting to your table.

Fill - Fill a selected object with a color, texture, or gradient.

Line - Change the thickness, fill, or style of a line or border.

Effects - Apply special effects like glow and shadow to selected objects

The Data Group



Autofill - Automatically fill a row or column in the table with a series of numbers or dates.

Convert Shape to Table - Fill the interior of a shape with a table.

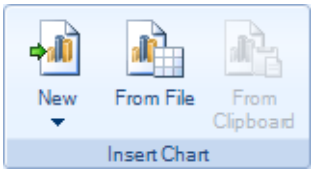
Convert Table to Text - Create a single text object containing all the text from the table.

Text Editing **Text Editing** - Lock the text in selected table cells so that it can't be changed.

The Chart Tab

Each of the Groups in the Chart tab has sets of commands represented by buttons and menus.

The Insert Chart Group

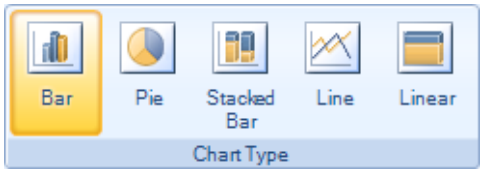


Insert New Chart - Select a chart type from the menu.

Insert Chart From File - Browse your computer for an existing chart.

Insert Chart From Clipboard - Insert a copied chart.

The Chart Type Group



Bar Chart - Switch your current data to a Bar Chart format.

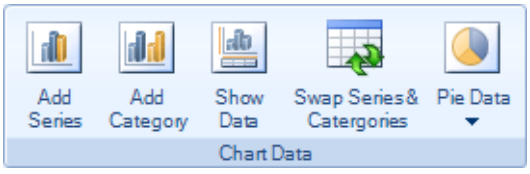
Pie Chart - Switch a category of your current data to a Pie Chart format.

Stacked Bar Chart - Switch your current data to a Stacked Bar Chart format.

Line Chart - Switch your current data to a Line Chart format.

Linear Chart - Switch a category of your current data to a Linear Chart format

The Chart Data Group



Add Series - Add a data series to your chart.

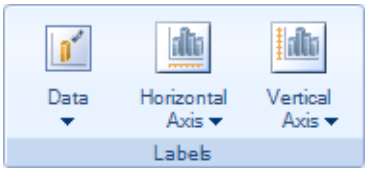
 **Add Category** - Add a series category to your chart.

 **Show Data** - Display a table containing the data depicted by the chart.

 **Swap Series & Categories** - Switch the display of series and categories.

 **Pie Data** - Choose which category to display in a pie chart.

The Labels Group

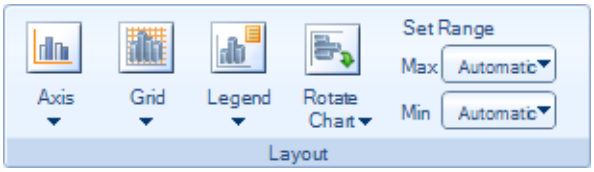


 **Data** - Select the manner in which data is displayed on your chart.

 **Horizontal Axis** - Select the manner in which the values for the horizontal axis are displayed.

 **Vertical Axis** - Select the manner in which the values for the vertical axis are displayed.

The Layout Group



 **Axis** - Select whether or not the axes are displayed.

 **Grid** - Select which parts of the grid are visible.

 **Legend** - Determine which parts of a legend are displayed.

 **Rotate Chart** - Select which quadrant the chart is in.

Max - Set the maximum of the vertical axis.

Min - Set the minimum of the vertical axis.

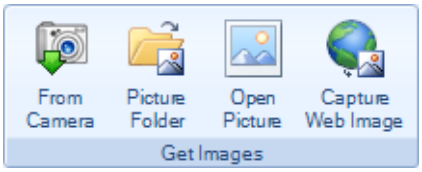
The Style Group

 **Fill Type** - Select a fill color, texture, gradient, or image.

The Picture Tab

Each of the Groups in the Picture tab has sets of commands represented by buttons and menus.

The Get Images Group



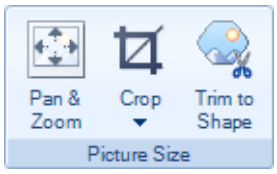
 **From Camera** - Import Images straight from a camera linked to your computer.

 **Picture Folder** - Open an entire folder of pictures.

 **Open Picture** - Open one picture.

 **Capture Web Image** - Take a screen shot of a web page.

The Picture Size Group



 **Pan & Zoom** - Change your view of the image.

 **Crop** - Crop your image to remove any unnecessary regions.

 **Trim to Shape** - Cut an image to fit in a shape.

The Exposure Group

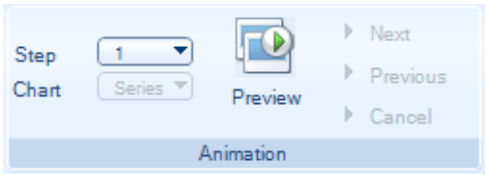
 **Brightness** - Adjust the brightness of the image.

 **Contrast** - Adjust the contrast of the image.

The PowerPoint Tab

The PowerPoint® tab allows you to animate your SmartDraw drawing before it is exported to PowerPoint®.

Many SmartDraw templates have an inherent sequence already set, to turn this animation off, uncheck the "Include Animation" box available in the Export Group.



The Animation group allows you to set how your SmartDraw drawing is displayed by allowing you to apply a Step number to each object in SmartDraw. Begin by assigning the objects you want to display with 1 all the way down to 16.

Use the Preview button to see how the drawing will animate in PowerPoint®. Use the Next and Previous buttons to navigate through the animation.

The Help Tab

The Help tab has a series of commands represented by buttons.

Tech Support - Contact technical support.

Updates - Check for SmartDraw program updates and new content.

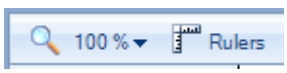
User Guide - Open the PDF version of the SmartDraw user guide.

About - Information about this copy of SmartDraw.

License - View the license(s) for this copy of SmartDraw.

The Work Area Toolbar

The **Work Area Toolbar** lies below the Main Toolbar and above the Work Area.



The Work Area Toolbar

Zoom Tool - Click in the drawing to increase the magnification. Hold Ctrl and click to decrease the magnification. To choose a specific magnification, click the down arrow and select from the list.

Rulers - Show or hide the rulers at the edge of the work area.

One-Click Common Control Buttons

The One-Click Common Control Buttons are located at the top left side of the SmartDraw Program Window.

Undo (Ctrl+Z) - Undo your last action.

Redo (Ctrl+Y) - Redo the last action (only available after you use Undo). Works up to 100 steps back.

New (Ctrl+N) - Open the template selection screen to begin a new document.

Save (Ctrl+S) - Save your document.

PDF Export - Exports and saves your drawing as a PDF (Adobe Acrobat) document.

Microsoft Word Export - Inserts your SmartDraw document into Microsoft Word as an OLE object.

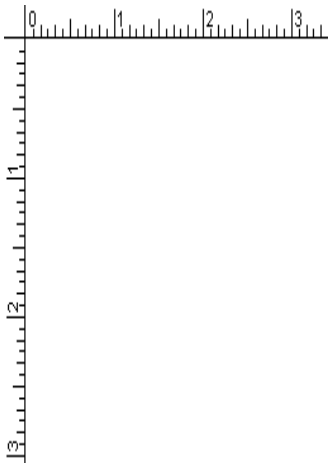
Microsoft PowerPoint Export - Inserts your SmartDraw document into Microsoft PowerPoint as an OLE object.

Microsoft Excel Export - Inserts your SmartDraw document into Microsoft Excel as an OLE object.

Rulers and Grids

Rulers

Show Rulers For some drawing types, rulers automatically appear along the top and left edges of the work area. For other types they are hidden. In either case, you can show or hide the rulers by clicking on the Show Rulers button on the Page Tab.

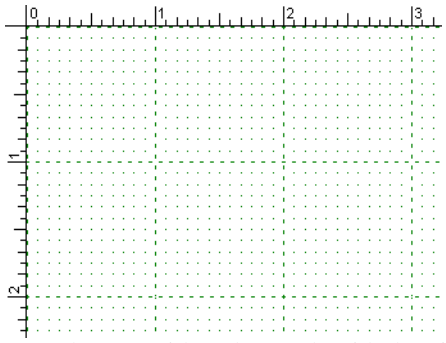


Work area with rulers showing

The **Status Bar** in the lower-right corner of the document window displays the coordinates of the cursor, and the dimensions of any currently selected shape, in the units of the ruler.

Clicking in a ruler displays a temporary dotted line, called a **Guide**, which follows the position of the cursor. This can be used to measure the position of an object in the drawing. Clicking in the upper left corner, where the two rulers meet, and then dragging your mouse into the drawing area, displays two of these lines forming a cross hair guide.

The Grid



The Work Area with Rulers and Grid Showing

Show Grid The divisions on the ruler define the spacing of a grid that underlies the drawing area. You can show or hide the grid using the **Show Grid** command on the **Page** tab. The same grid (whether visible or not) controls the spacing of the Grid Snaps.

You can print the grid with your drawing if you like**:** click the **SmartDraw Button**, then click **Print** and check **Print the Grid** in the Print Dialog**.**

Undo and Redo

 Almost any change you make to a drawing can be undone using the **Undo** command, at the top left of the SmartDraw Program Window. **Ctrl-Z** is the shortcut keystroke for Undo.

 After you undo an operation, the **Redo** button becomes active. Using Redo returns the program to its state before the undo command was used. **Ctrl-Y** is the shortcut keystroke for Redo

You can undo and redo up to 100 steps back.

If the button is gray, there is no previous state to return to.

Storing Two or More Drawings in the Same Document

Because SmartDraw supports multiple pages per document, you may be tempted to put separate drawings on different pages in the same document.

Don't do this! Store each independent drawing in its own document.

The multiple page feature of SmartDraw is intended to allow you to draw one large drawing that requires more than a single page. It is not intended to allow you to put 6 different flowcharts in one file. Commands like **Center Drawing on Page** and **Print on One Page** assume that the contents of a file are one drawing. There is nothing to gain by storing multiple drawings in one file. Put all drawings you want to print separately in their own drawing file.

If you have already put more than one drawing in the same file, it is easy to separate them by using **Copy** and **Paste** to place them into new files.

Tool Default Settings

If you change the characteristics of an object in your drawing (such as the fill color of a shape, or the thickness of a line) the next object you draw will have those characteristics.

The few exceptions to this rule are specialized settings that you are unlikely to want as a default.

If you choose to, you can set your own custom default settings for new documents. This is described in the Creating Custom SmartTemplates section under Designing SmartTemplates.

Exiting SmartDraw

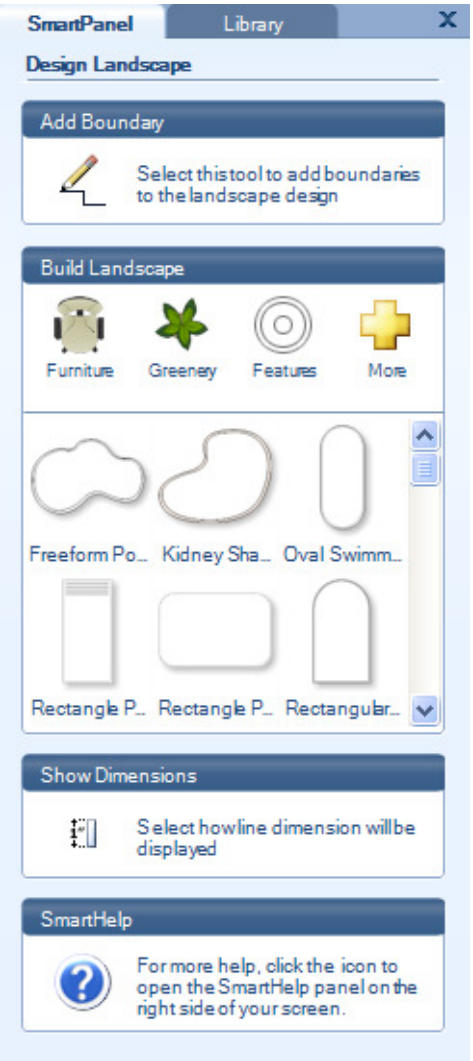
You can exit and close any running copy of the SmartDraw program by clicking the **Close Button (X)** at the upper right corner of the **SmartDraw program window.**

You can also use the keyboard shortcut Alt F4. Before the program quits, you are prompted to save any open drawings that have been changed.

The Left Panel

The Left Panel

The **Left Panel**, at the left side of the Work Area, displays the **SmartPanel** and **Library Tabs**.



The Left Panel

The SmartPanel Tab

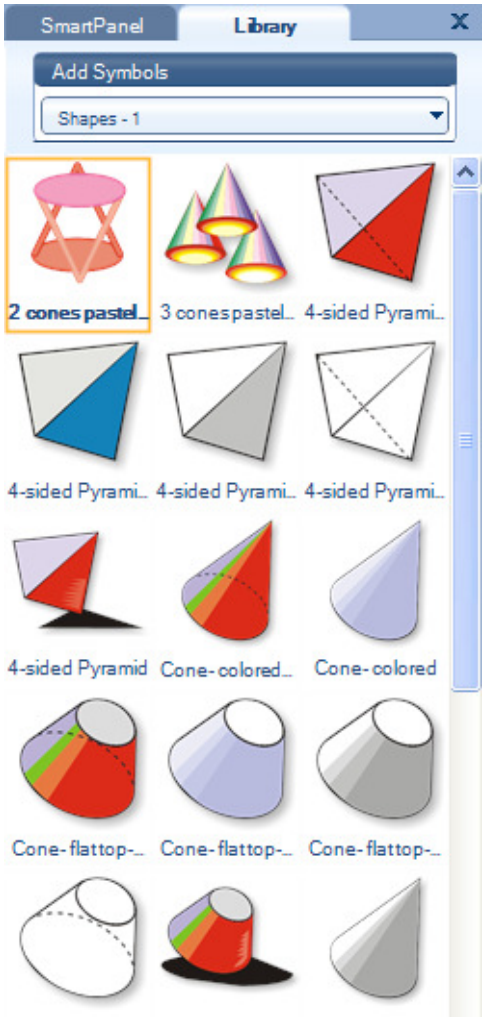
The SmartPanel contains buttons and commands relevant to a specific template category. All of these commands can be found elsewhere in the program window, such as the Main Toolbar, but the SmartPanel is designed to make creating the specified drawing fast and easy. Each SmartPanel contains a **SmartHelp Button** at the bottom to guide you through creating your drawing.

When necessary, the SmartPanel contains a small Symbol Library Gallery containing a selection of libraries that are pertinent to the diagram type. In some SmartPanels, like the Landscape Design above, the Libraries are topped by **Library Selector Buttons** that you can click on to quickly switch between libraries. In other SmartPanels, such as the one below, there is a **Library Selector Menu**.

A SmartPanel Symbol Library Gallery with a Library Selector Menu

The Symbol Library Tab

When you open a SmartTemplate, the Left Panel will by default be opened with the SmartPanel showing. To switch to the Symbol Library, simply click on the **Library** tab at the top of the Left Panel.



The Symbol Library

Usually, the SmartPanel will have a symbol library when symbols are necessary or recommended for a particular SmartTemplate, so the Library tab is not an absolute necessity. However, the Library tab is available for all SmartTemplates, so you may wish to use it when there is no library on the SmartPanel.

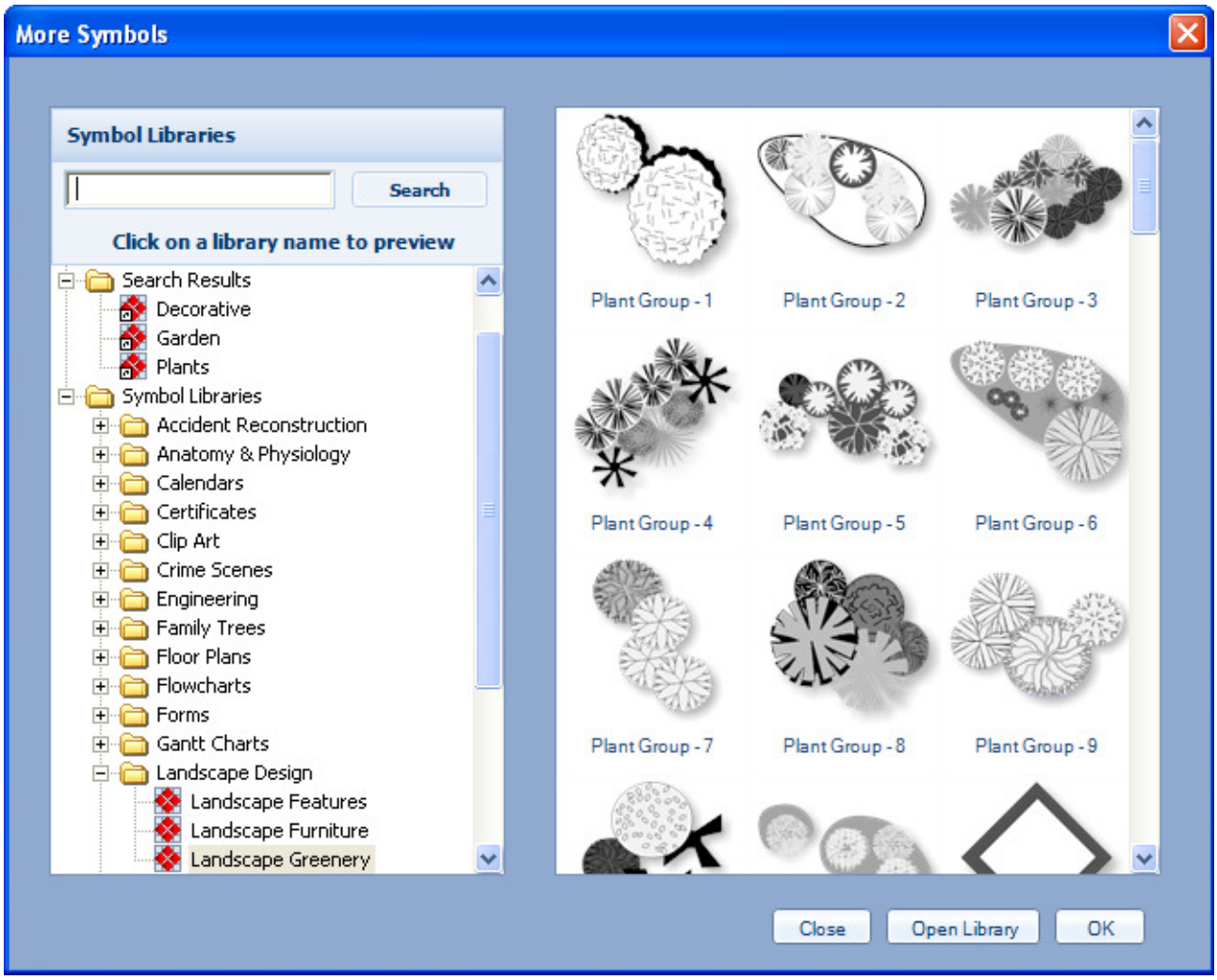
The Library Tab has a **Library Selector Menu** just like that of the SmartPanel. You can click on the menu to view and switch libraries.

Searching the Symbol Libraries

Opening the More Symbols Dialog

In the SmartPanel, you can click the **More** Library Selector button and select **More...** if there are buttons, or you can click the Library Selector Menu and select **More...** if there is a menu.

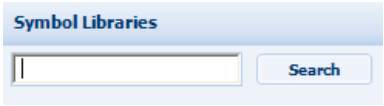
In the Library Tab, click the Library Selector Menu and select **More...**.



The More Symbols Dialog will appear.

Using the Search Bar

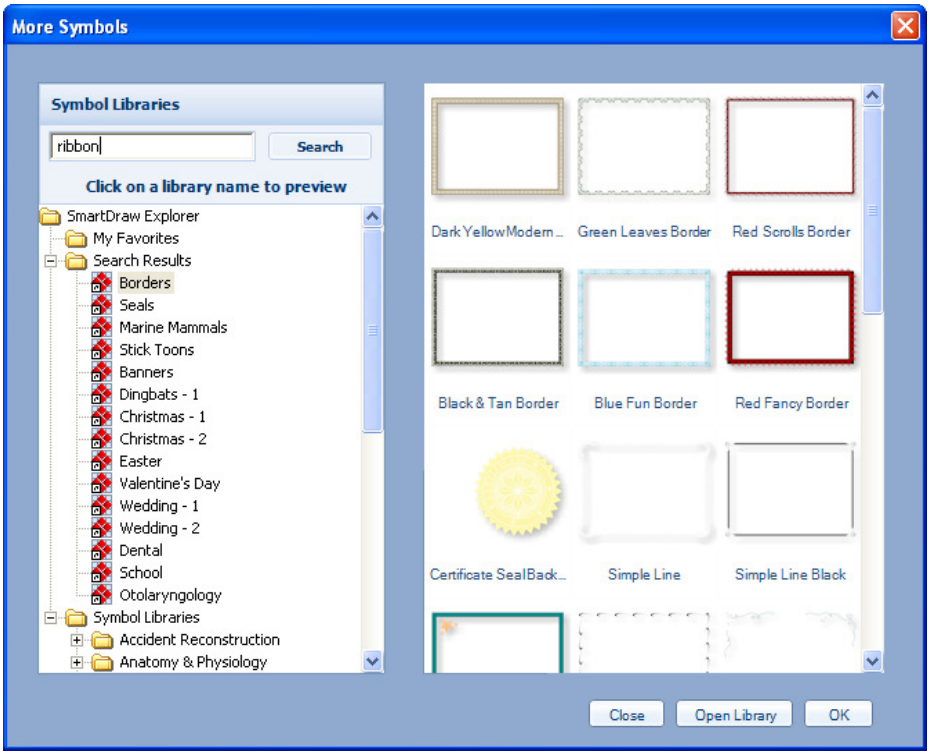
At the top of the More Symbols Dialog is the symbols Search Bar. Typing a word into this bar and pressing the Enter Key, or clicking on the Search button, searches the SmartDraw symbol libraries for symbols that match that word.



The Search Bar

When the search is completed search results will be displayed in the **Search Results** folder in the Explorer Tree.

The **Explorer Tree** is the column of yellow folders in the left side of the More Symbols dialog box. It shows a list of all the currently installed SmartDraw Symbol Libraries.



Results of a Search

The Search Results folder contains temporary **shortcuts** to the actual libraries, so when that folder is cleared, the real libraries remain in their normal locations.

In addition to the words in its name, every SmartDraw symbol can contain **keywords** that describe its content. These too are searched.

You can enter more than one word into the **Search Bar**, separated by spaces or commas. SmartDraw finds matches for libraries that contain *all* of the words that you specify. (In Boolean terms, the search is an AND search). If you want to make it an OR search, you can type Keyword OR Keyword, and SmartDraw will find *any* of the keywords that you type.

The search is not case-sensitive. (It doesn't matter if the words are in capital letters). Partial matches are found as long as the word begins with the search word. For example, if you searched for *Form*, matches would be found for *Forms and Formula* but not *Perform*.

The word-search index is rebuilt automatically when changes are made to the symbol libraries, but if you suspect trouble with the index, you can force it to be rebuilt by holding down the CTRL key as you click on the "Search" button.

Browsing for Symbols

In addition to the keyword search, you can also browse through the Symbol Libraries using the **Explorer Tree** in the More Symbols Dialog.

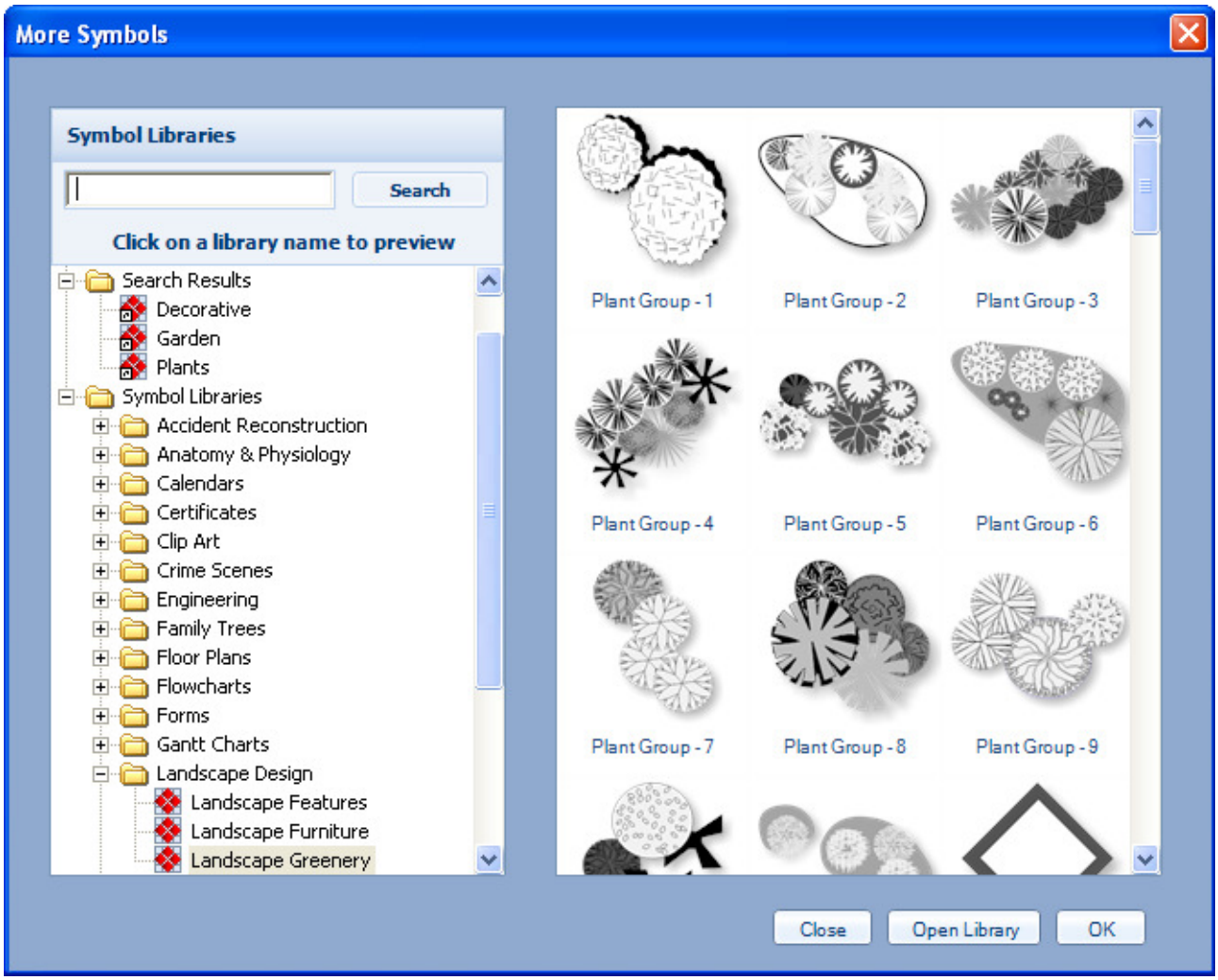
Clicking on the name of a folder, or the plus sign beside it, opens that folder. Clicking it a second time closes the folder.

To open a symbol library, double click it or click once on it, and then click the Open Library button at the bottom of the dialog box.

Opening Symbol Libraries

SmartDraw **Symbol Libraries** appear as red, gray, and white icons within the folders of the Explorer Tree, at the left side of the More Symbols dialog box.

When you click on a library, its contents are displayed in the right side of the More Symbols dialog box.

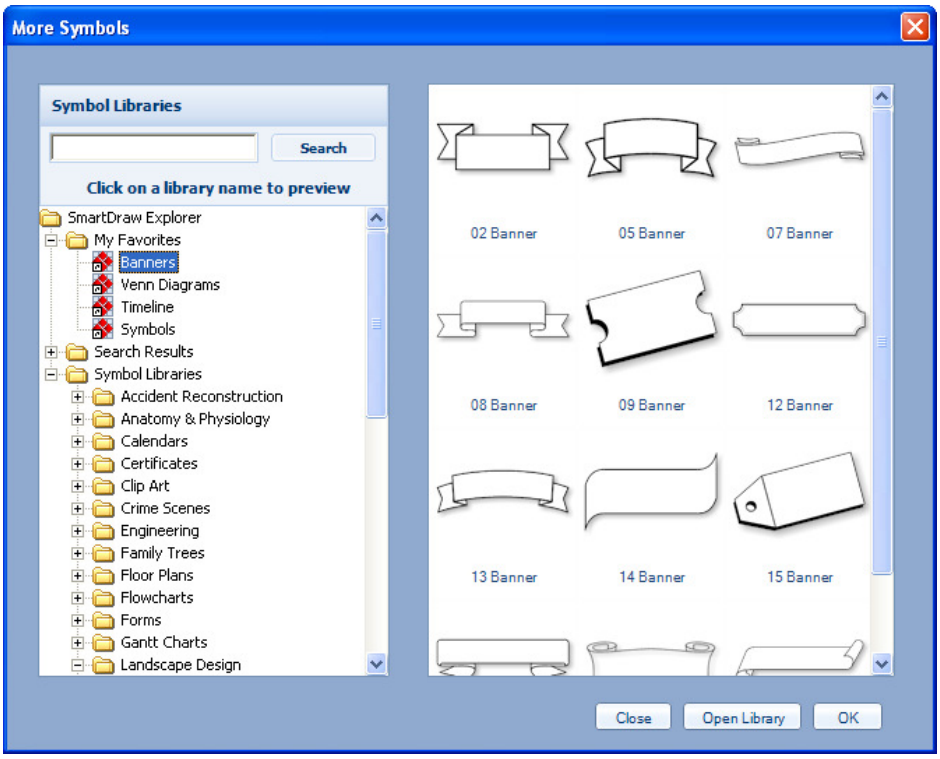


When you find the desired symbol library in the Explorer tree, you can open it by double clicking it, or clicking the **Open Library** button at the bottom of the dialog box.

The open library will appear in the Library Tab and the SmartPanel Tab (if there is a Symbol Library Gallery) of the Left Panel.

Explorer Favorites

The **Symbol Explorer Tree** appears s in the left column of the **More Symbols** dialog box. At the top of the symbol Explorer tree is a folder called **My Favorites**.



You can drag Symbol Libraries from other sections of the Explorer tree into Favorites to have them readily available.

Your Favorites folder contains a **short cut** to any library you add to it. It does not create a copy of the library or move it from its original location. You can delete library short cuts from Favorites without deleting the libraries themselves.

You can create your own sub-categories inside Favorites by right-clicking on the folder. You can also drag icons (and sub-folders) from one Favorites sub-folder to another.

Your Favorites folder is stored in your personal preferences and is not shared with any other user on a network installation.

Symbol Explorer Right Mouse Button Menus

 In the More Symbols dialog box, right-clicking on the symbol library icons in the **Explorer Tree** displays a context-sensitive menu (one that depends on the location of the icon clicked-on).

Normal Symbol Library Icons

Right clicking on a library icon lets you open it, add it to your favorites, or display a Preview that stays up until you click somewhere else.

Favorite Library Icons

Right-clicking on a library icon in the **My Favorites** folder lets you open it, remove it from your favorites, or display a Preview that stays up until you click somewhere else.

The Favorites Folder

Right clicking on the **Favorites folder** lets you clear all favorites.

Favorites Sub-Folders

Right clicking on a Favorites sub-folder lets you create your own sub-folder within it. If the sub-folder is one you created, you can also delete it and rename it.

SmartDraw Explorer

Right-clicking on the **SmartDraw Explorer** folder at the top of the tree offers you more information about it.

Refreshing the Symbol Explorer Tree

In the left column of the More Symbols dialog box, closing the **SmartDraw Explorer** folder at the top of the Symbol Explorer tree and then re-opening it causes the tree structure to be rebuilt.

You need not do this unless you think some installed libraries are failing to appear in the tree. Your next search will rebuild the word index.

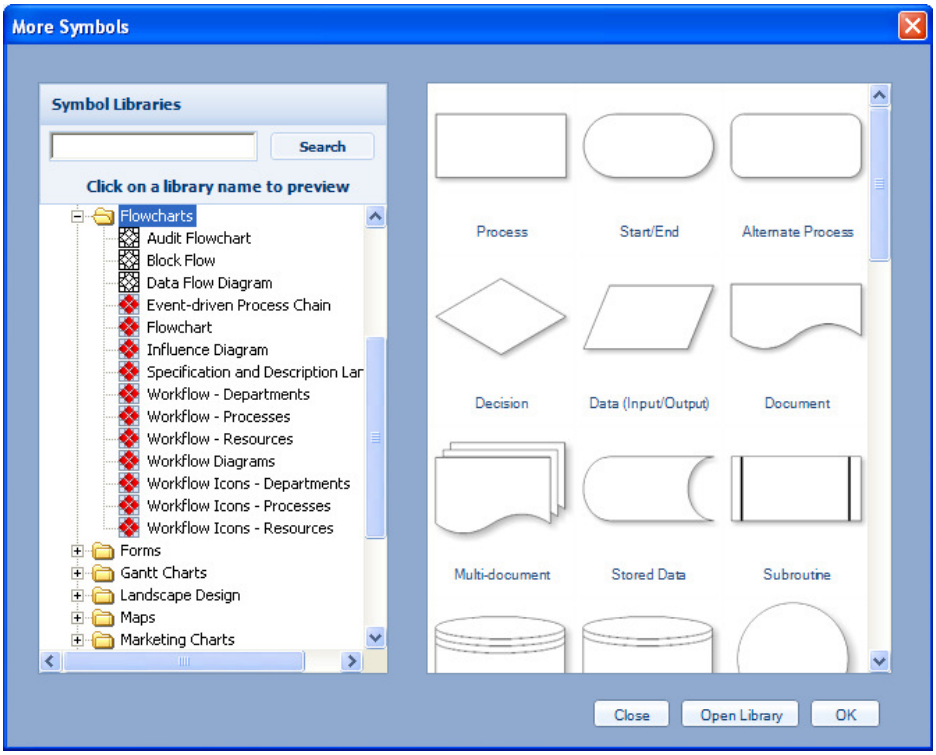
Sometimes installing new Symbol Libraries will cause the Explorer tree to refresh itself automatically.

Library Previews and On-Demand Installation

Your **Symbol Explorer Tree** (in the More Symbols dialog box) may contain **Previews** of some **Symbol Libraries** that are not yet installed.

These previews provide the benefits of having SmartDraw's complete catalog of symbol libraries available for searching, while using about 1% of the disk space required by the full libraries if completely installed.

A *preview* is a small copy of a symbol library file that contains only the preview image (the small thumbnail image you see when you browse through the Explorer tree). Previews let you browse and search the library catalog as if it were completely installed on your system. Previews are shown in the tree with white instead of red icons.



When you attempt to open a symbol library preview, the library will automatically begin downloading from the web.

You must have access to *FTP* to install libraries from the SmartDraw web site. Inside some corporations, this service is blocked. Talk to your network administrator if you have difficulties.

Licensed and Unlicensed Content

All of the SmartDraw library symbols and drawing templates (collectively called content) available to you in your purchased SmartDraw program will be licensed to you, and you will have full use of them. If you installed previews of some content in your Symbol Libraries for which you do not have a license, you will get a license error warning if you try to open them. You can license such content by upgrading to a higher version of SmartDraw.

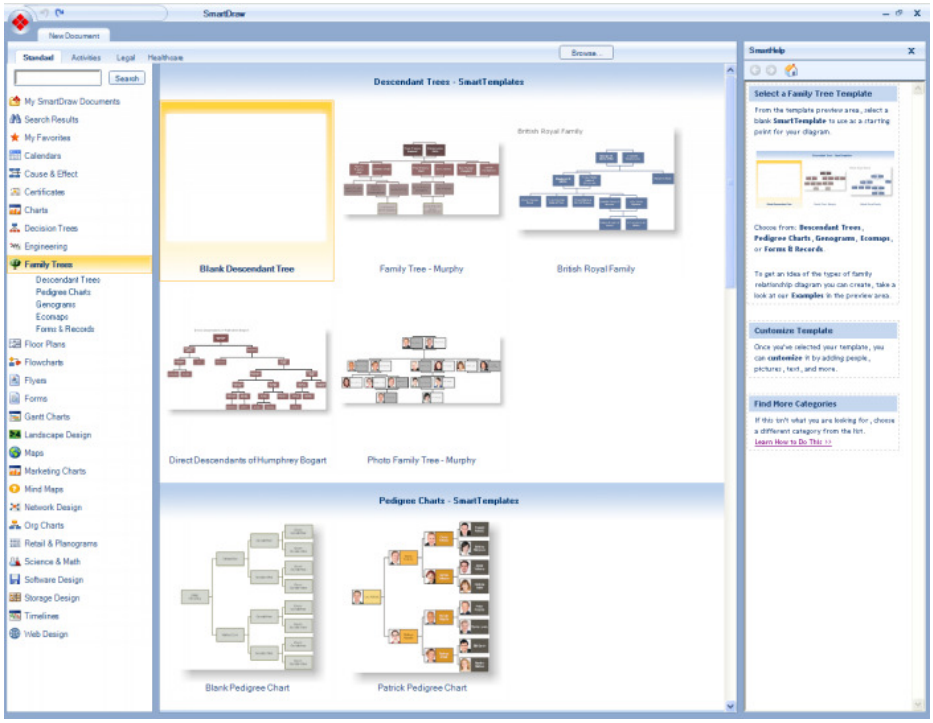
Drawing with SmartDraw

Selecting a SmartTemplate

SmartTemplates are the ready-made templates that you use to create any type of drawing in SmartDraw.

Each SmartTemplate is designed for one particular type of drawing, and it's important to choose a template that matches the **type** of drawing you intend to create.

When you create a new document in SmartDraw you'll see the **Document Browser screen**.



Choosing a Template from the Document Browser

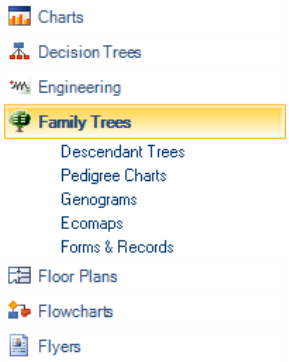
Choose a SmartTemplate by clicking on the image of the one you want to open.

If none of the templates exactly match the kind of drawing you want to create, pick the one most similar.

Each template (even the blank ones) has special settings for grid snaps, line-linking, and other crucial attributes that make it easy to draw a particular type of diagram — or very difficult if you choose the wrong type of template.

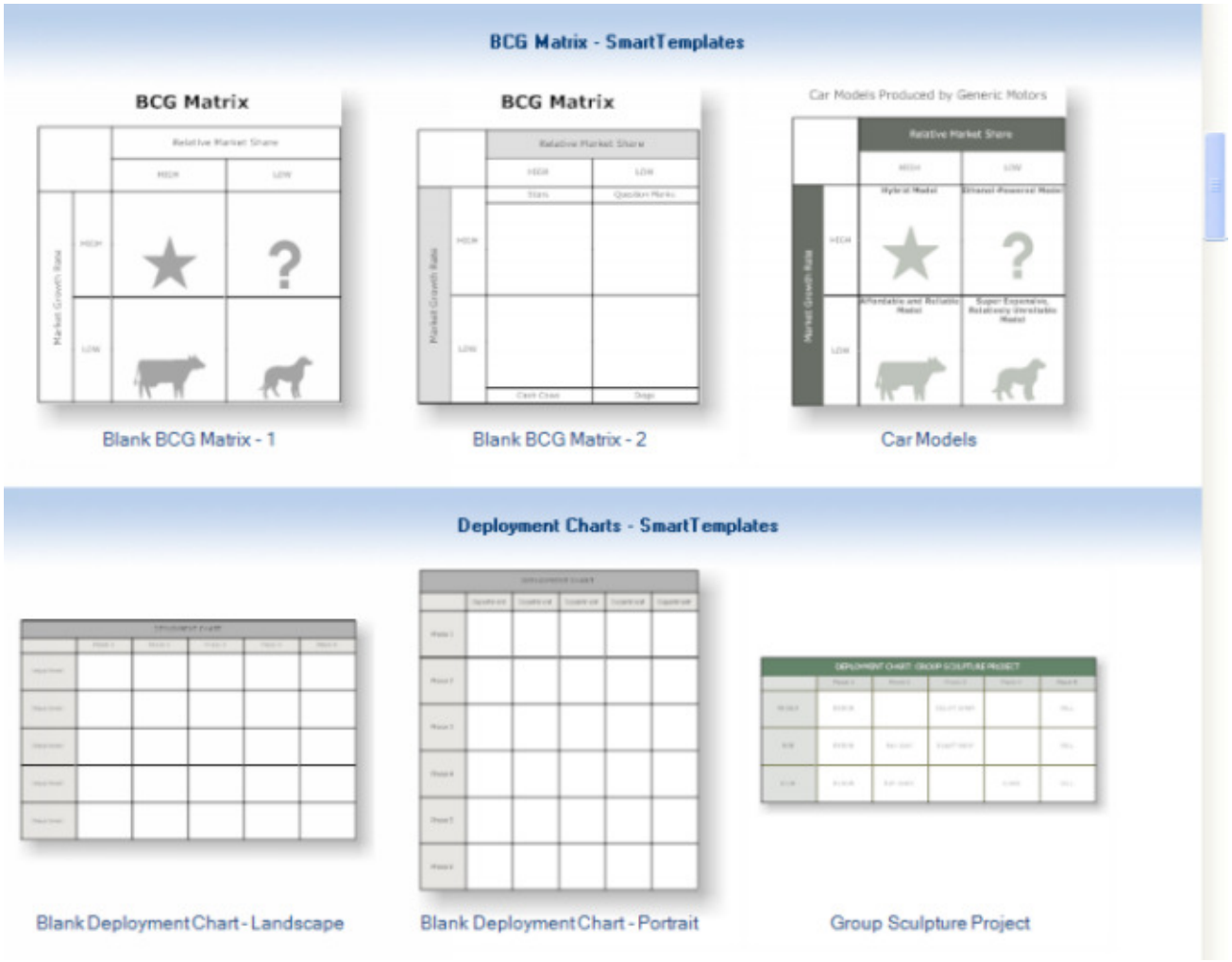
Browsing the Template Categories

At the left side of the Document Browser is the **Category List**. You can expand each category by clicking on its name, to display its **subcategories.**



Template Categories

In the preview area in the center of the Document Browser you see the template Previews: small images of the templates that you can browse through.



The thumbnail images are divided into subcategories, one above another. You can view the thumbnail subcategories by scrolling down the thumbnail list.

SmartTemplates vs. Examples

Some of these thumbnail images represent true **SmartTemplates**, which are **starting points** for making drawings.

Others are **Examples**, which are educational illustrations of finished diagrams.

You can **open and modify** the examples exactly as if they were drawings you created. You may find that some examples are similar enough to the drawings you want to make that you can use them as starting points.

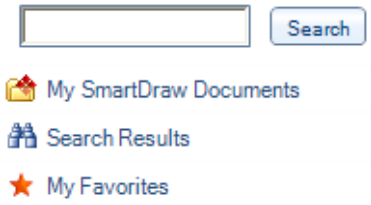
See also Creating Custom SmartTemplates.

See also Searching for SmartTemplates

See also SmartTemplate Favorites

Searching for SmartTemplates

You can search for SmartTemplates and Examples (which we will collectively call templates) using the **Template Search Box** at the top of the Document Brower. Typing a word into this box and clicking on the **Search** button (or pressing **Enter**) searches all of your templates for those that match that keyword.



The Template Search Bar

In addition to searching the words in the templates' *names*, SmartDraw also searches through **keywords** associated with each template.

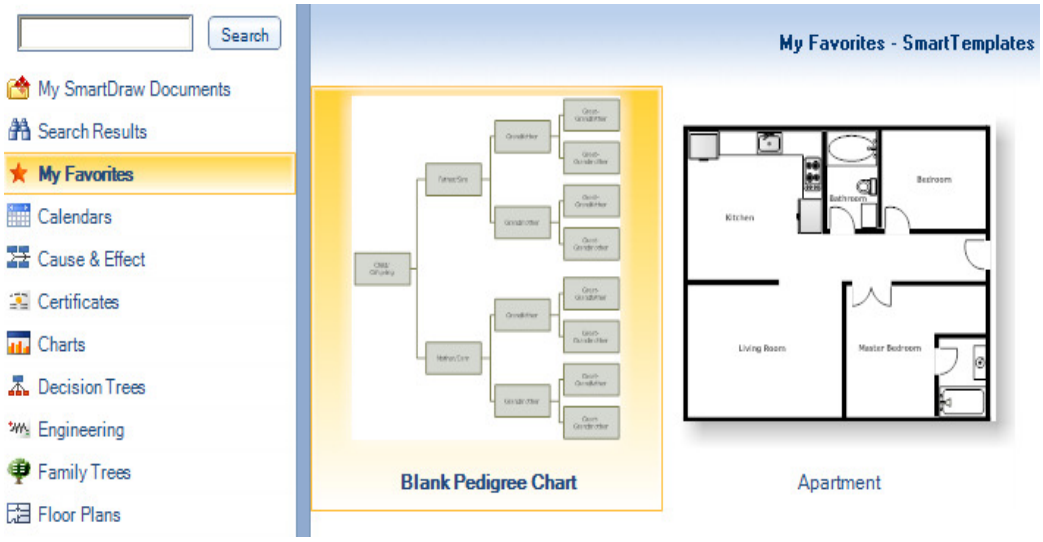
You can enter more than one word into the Search Box, separated by spaces or commas. SmartDraw finds matches for templates that contain *all* of the words that you specify. (In Boolean terms, the search is an AND search). If you want to make it an OR search, you can type Keyword OR Keyword, and SmartDraw will find *any* of the keywords that you type.

The search is not case-sensitive. (It doesn't matter if the words are in capital letters). Partial matches are found as long as the word begins with the search word. For example, if you searched for *Form*, matches would be found for *Forms and Formula* but not *Perform*.

The search results appear in the **Search Results** folder near the top of the template category list. The results of your last search will be available there until you conduct a new search.

SmartTemplate Favorites

If you right click on a SmartTemplate or Example (which we will collectively call templates) in the Document Browser, you can add it to **My Favorites**, which appears near the top of the category list.



The Favorites category contains **short cuts** to the actual templates. The original templates still reside in their original locations, and removing them from Favorites does not delete the actual templates.

You can remove a template from My Favorites by right clicking on its name in the My Favorites folder, and selecting **Remove from Favorites**. Choosing **Clear Favorites** will remove all templates from the favorites category.

SmartTemplate Previews and On-Demand Installation

Some of the SmartTemplates and Examples (which we will collectively call templates) shown in the Document Browser may be **Previews** of templates that are not yet installed.

These previews provide the benefits of having SmartDraw's complete catalog of templates available for browsing, while using a tiny fraction of the disk space required to install all of the actual templates.

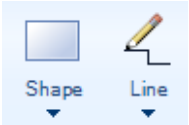
The preview thumbnail image looks identical to an installed template thumbnail. But when you try to open a preview, the template will automatically install the actual template from the web.

You must have access to *FTP* to install templates from the SmartDraw web site. Inside some corporations, this service is blocked. Talk to your network administrator if you have difficulties.

Adding Objects to Your Drawing

A SmartDraw drawing is made up of **shapes**, **lines**, and sometimes ready-made graphic **symbols** like clip art. All of these are called **Objects**.

You can always add **shapes** and **lines** to your drawing by using the buttons on the Home Tab.



The Line and Shape buttons on the Home Tab

With some drawing types you will find specialized buttons for adding shapes and lines on the custom **SmartPanel** for that drawing, found at the left site of the SmartDraw Program Window. Details of using each SmartPanel are presented in the SmartHelp panel displayed at the right side of the screen as you draw.

Adding Symbols

You add Symbols to your drawing by taking them from the **Symbol Libraries** in the SmartPanel or Library Tabs of the Left Panel.

A Symbol Library in the Left Panel

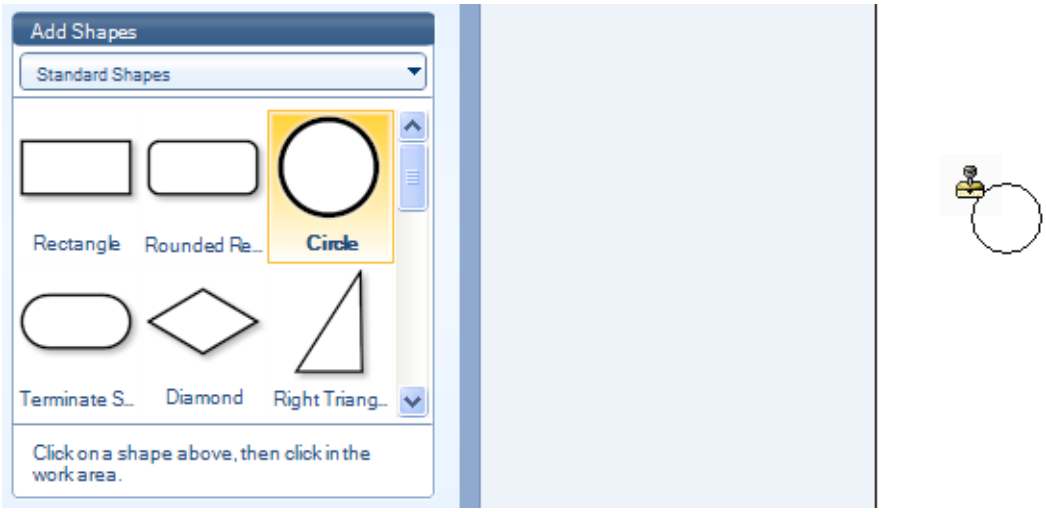
There are two ways to add library symbols to your drawing:

1. Click and Stamp

To stamp an object from a symbol library on your page: click once on the symbol icon in the library window, and then click in the page where you want to place it.

When you click on a symbol in the library, your cursor looks like an old-fashioned **rubber stamp**, and it carries a rectangle indicating the outline of the object as you

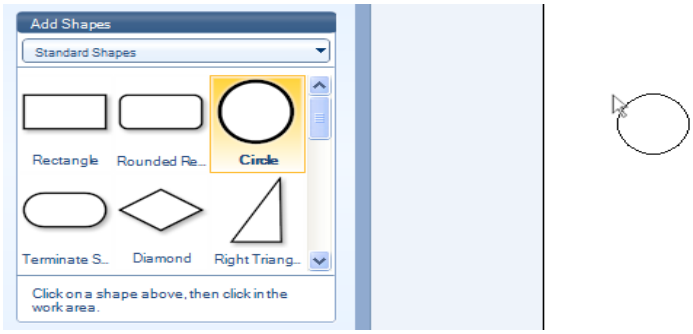
move it over the drawing area. When it is in the desired position, click once to place it there.



Ready to stamp a Symbol

2. Drag and Drop

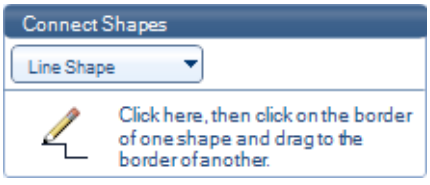
To drag and drop a symbol from a library: click a symbol icon in the library window, hold the mouse button down, drag it to the Drawing Area, and release.



Drag and drop a symbol

Drawing Lines

You draw lines using the **Line Tool** in the **Tools** group of the **Home** tab. To select the type of line, click the down arrow and choose from the menu.



A SmartPanel Line Button

For some drawing types, a customized **Add Lines** button appears on the custom SmartPanel at the left side of the SmartDraw Program Window, and provides a shortcut to this function. Based on the drawing type, this button may have different default settings so that you can draw lines typical to that type of drawing

To draw a line, click on the line tool. Your cursor becomes a pencil. Click down in the drawing area, drag the mouse to draw the line, and release. After drawing the line, you can use the black **selections handles** on it to adjust its shape.

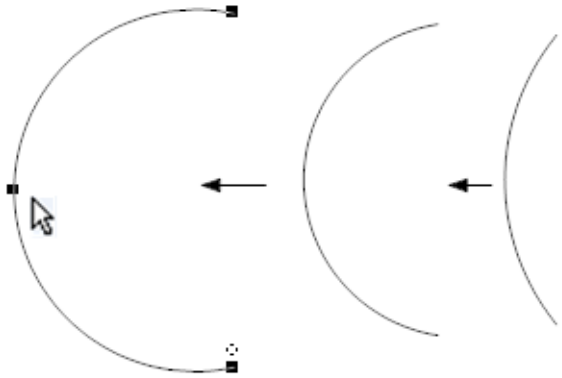
The Line Tool contains seven types of lines:

Straight Line

A **Straight Line** can be drawn at any angle, but it will snap to perfectly horizontal or vertical directions if drawn close to these directions**.** If you want a line just a few degrees off from horizontal or vertical, you can use the Rotate command on the Arrange group to specify its angle precisely. (Note: lines snap to the Grid just as shapes do. For more information see Using Grid Snaps.)

Curved Line

A Curved Line connects any two points with an **arc** of a circle. After drawing the curved line, the degree of curvature can be adjusted using the special handle at its center, and its endpoints can be positioned using the handles there.

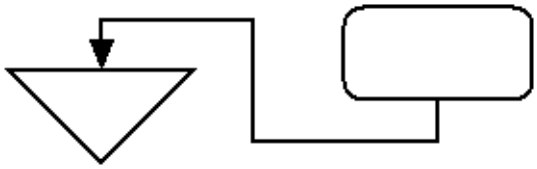


Adjusting the curvature of a Curved Line

Shape Connector Line

The **Shape Connector** is designed to connect two objects. It attaches itself perpendicularly to each object and travels from point A to point B in straight

segments with 90-degree turns. (Don't worry if it flops around while you're drawing it. When you finally anchor it, it will fall neatly into place.)



A Shape Connector Line connecting two shapes

For the segmented line to attach properly, you must have **Allow Lines to Link** turned on in the SmartDraw Options under the SmartDraw Button.

Moving the attached objects causes the segmented line to change its shape to maintain its position relative to each object. Segmented lines can have from 1 to 5 segments, depending on the arrangement of the shapes linked.

Curved Connector Line

The **Curved Connector Line** behaves exactly like the Shape Connector Line, but instead of having square corners, it travels from point A to point B in a smooth curve.

A Curved Connector Line connecting two shapes

Freehand Line

The **Freehand Line** draws like a pen on paper. Click in the drawing area and drag the mouse to create a line of any random shape. See Drawing Freeform Shapes and Lines.

Polygon Line

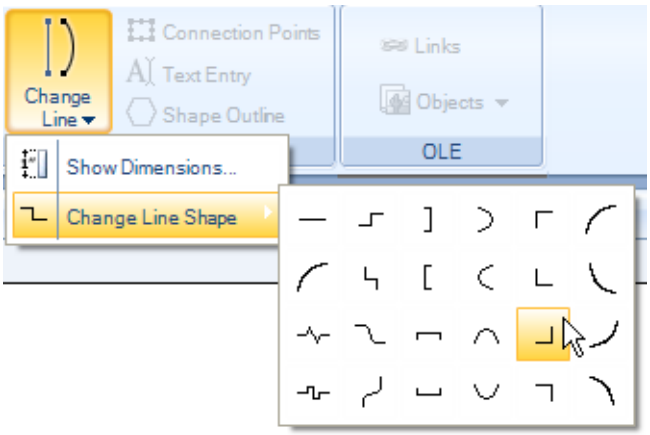
The **Polygon Line** draws a continuous line made of straight segments. Each time you click in the work area, a new segment is added, until you either close the shape by returning to the starting point, or press Esc to stop. See Drawing Freeform Shapes and Lines.

Wall Line

The **Wall Line** is used to create walls in Floor Plans.

Changing the Shape of a Line

Any existing line on the page can be changed to a different type of line by clicking on it to select it, clicking **Change Line** in the **Design** tab, and choosing **Change Line Shape** from the menu.



The Change Line Shape menu

In addition to the types mentioned in Drawing Lines, you can change a line shape to any of the shapes shown in the menu above.

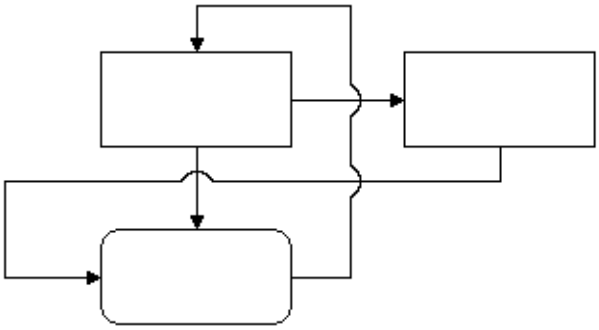
Many of these line shapes are also offered in special **configurations**, such as being constrained to vertical or horizontal positions or a fixed number of segments.

You can also use the **Flip** command on the Design tab to create additional variations.

(Note: The Shape of a line should not be confused with the appearance or **Style** of the line. See Changing the Appearance of Lines.)

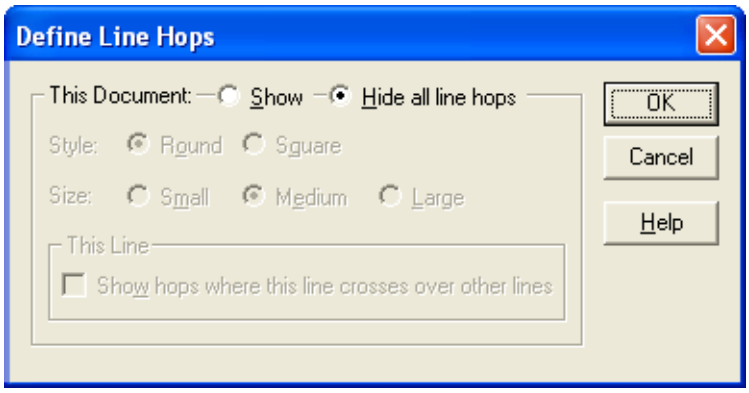
Line Hops

Line hops are used in flowcharts and engineering diagrams to indicate lines that **cross without intersecting.**



Line hops work only for lines created with the **Straight Line**, **Curved Line**, **Shape Connector** and **Curved Shape Connector** tools on The Work Area Toolbar. (Not for Automatic Org Chart connectors or shapes created with the Freehand Drawing tools.)

You can turn line hops on or off for a document by right-clicking on the line to bring up the Line Hops dialog.



The Line Hops Dialog

For some drawing types, a **Line Hops** button appears on the SmartPanel at the left side of the SmartDraw Program Window. This provides a shortcut to launching the Line Hops dialog.

For line hops to appear, the Line Hops feature must be turned on for the whole **document** (by choosing the **Show** button in the Line Hops dialog), and for the individual line you have clicked on (by checking **Show hops where this line crosses over other lines**.)

The **style** (round or square) and **size** (small, medium, or large) of the line hops are set for the entire document, not for individual hops.

If the line being hopped over is a double line (from the Line Style menu), or simply two single lines drawn close together, the hopping line will make just one hop spanning both lines.

Line hops rely on the Front-to-Back order to know which one is on top. The line in **front** will have the hop (bend) in it. If your preferred line does not have the hop, you'll need to bring it to the front by selecting it and choosing **Bring to Front** from the **Design** tab. See Changing the Front-to-Back Order.

A line may have no more than 32 hops. If the position of a line hop conflicts with an arrowhead, the arrowhead overrules the hop.

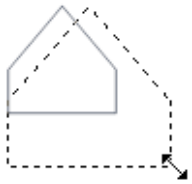
Selecting Objects

Before you can move, stretch, color, or manipulate an object or piece of text on your page, you must *select* it.

 The **Selection Tool** (in the Tools group of the Home tab) is your normal cursor. To select an object on the page, click on it once with the Selection tool.

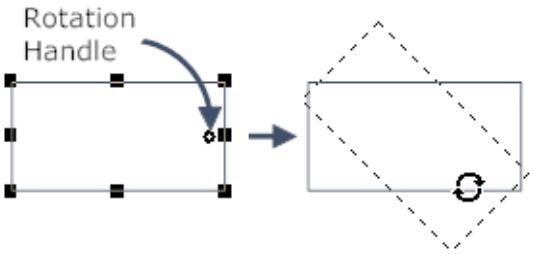
Shapes filled with transparent color must be clicked on their border to be selected. Shapes filled with a color (even white) can be clicked anywhere in their interiors as well.

A selected object has black **Selection Handles** at the corners. By dragging these handles, you can stretch or resize the object.



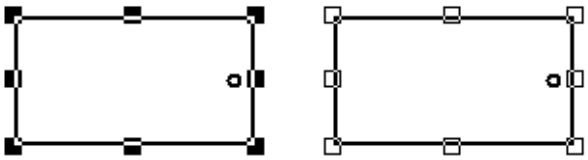
Growing an object

A selected object also has a **Rotation Handle**. By dragging the rotation handle, a shape or line can be rotated to any angle.



If several objects are selected, the last one selected has solid (black) handles and is called the **Target Object**. Other selected objects are shown with hollow handles. The target object is called the target because, when you use certain commands such

as **Align** and **Make Same Size,** the other selected objects are aligned or re-sized to match it.



Selecting an object by clicking on it de-selects all other selected objects unless you hold the **Shift** or **Ctrl key** down while you click. With the **Shift** or **Ctrl key** held down, clicking a second time on any object de-selects it.

Selecting Text

You can select text in your drawing in one of two ways: You can click on the **object** (including a background text object) that contains the text, which implicitly selects the whole piece of text inside the object for editing. Or you can double-click on the actual text inside any object, which opens the text for editing and places the cursor in the clicked position. In this case, the cursor changes to a typical text-insertion cursor, which you can drag to highlight parts of the text for making changes.

See also Selecting Multiple Objects

For special instructions on selecting text in **Table Cells**, see Selecting Table Cells.

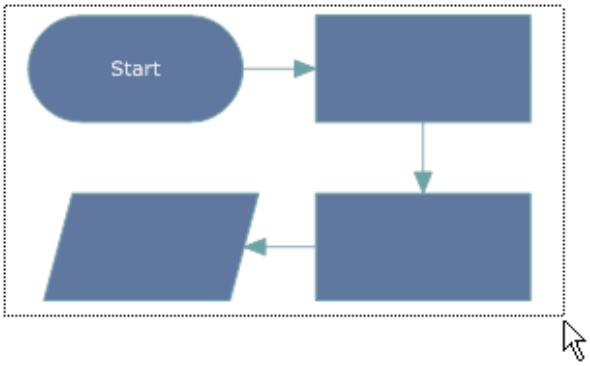
Selecting Multiple Objects

There are four ways to select several objects at one time:

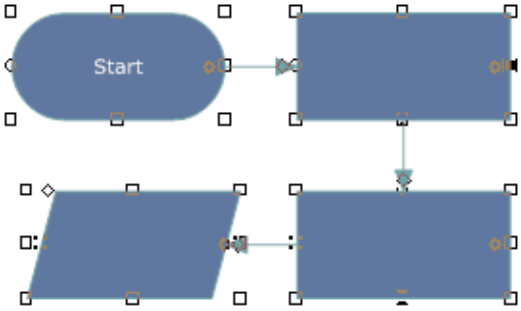
1) Hold the **Shift Key** down while clicking on each object in turn with the normal selection tool .

2) Choose the **Multiple Selection** Tool in the **Select Drop Menu** in the **Home** tab and click on a series of objects, one after another, to select them all. Clicking in the background of the drawing cancels the Multiple Selection session.

3) Trace an imaginary box around the group of objects with the mouse. Click in an empty area of the page, hold the mouse button down, and drag the mouse until the dotted box encloses the objects you want to select. Then release. All of the objects inside the box will be selected.



"Boxing" with mouse



All objects selected

Holding the **Shift key** down while drawing the box adds the enclosed objects to any existing selection.

Boxing (sometimes called rubber-banding) is useful for deleting unwanted objects from your page. Simply trace a box around the area you want to delete, and then press the delete key.

4) **Select All** - On the **Home** tab, choose **Select**, and choose to select (a) all the Lines in a drawing, (b) all the Shapes in the drawing, or (c) all the Objects (i.e. everything).

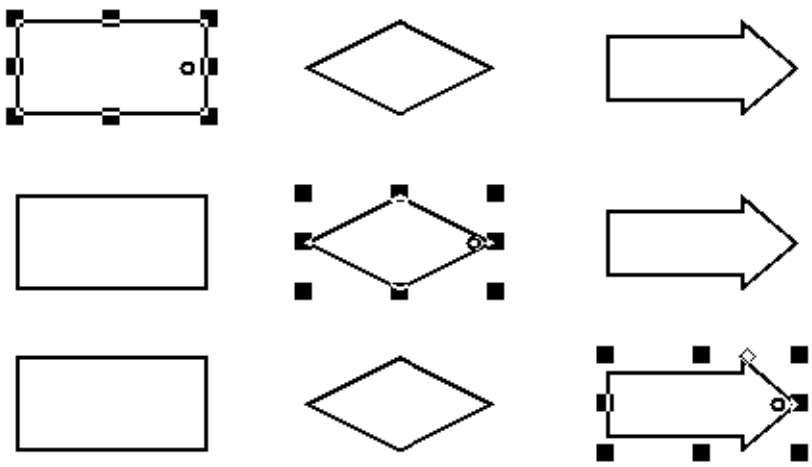
See also Selecting Objects

See also Selecting with the Tab Key

Selecting with the Tab Key

If no objects in your drawing are selected, pressing the **Tab key** selects the **first** one.

If one or more objects are already selected, pressing the **Tab key** moves the selection from the currently selected object to the **next** created object in the drawing.



Selecting the next object with the Tab key

Pressing **Shift-Tab** reverses direction and selects the previous object in the drawing.

Selection Difficulties

Sometimes, it's hard to click on the object that you want because other objects lie on top (or in front) of it. There are two ways to overcome this:

You can select the objects on top and use the **Send to Back** command under the **Design** tab.

Alternately, you can drag a box around the objects, selecting them all. Shift-clicking on the objects in the front now de-selects them, leaving only the object you want still selected.

Once selected, the colors, borders and other attributes of objects can be changed using the menu commands. Selected objects can also be cut, copied and duplicated. Typing from the keyboard when a shape is selected adds text to it. These actions are described in detail elsewhere.

The Tab order is controlled by the **Front to Back Order** of the objects. See Changing the Front to Back Order.

Moving Objects

Moving Objects with the Mouse

You can move an object simply by clicking on it and dragging it with the mouse while keeping the mouse button pressed down. An outline of the object follows the mouse as you move it.

If you hold the Shift key down while you use the mouse to move an object, it moves only horizontally or vertically.

Moving a Group of Objects

If more than one object is selected, clicking and dragging on any one of them moves all the selected objects as a group. If an object is linked to another (with certain kinds of linking) moving one of the objects will move the other.

When a Group of objects (that has been created with the Group command) is moved, an outline of the rectangle that encloses the group follows the mouse.

Moving Objects with the Arrow Keys

You can use the arrow keys to move objects very precisely. Typing an arrow key moves a selected object by one screen pixel (1\100 of an inch at normal viewing magnification) with each keystroke. The arrows move the objects on-screen according to their direction: up, down, right, and left. If more than one object is selected, all are moved.

Aligning Objects

The Align command on the Design tab aligns all selected objects with the selected target object. See Aligning Objects.

Spacing Objects Evenly

The Space Evenly command on the Design tab positions all selected objects to have equal distances between them. See Spacing Objects Evenly.

Centering the Drawing on the Work Area

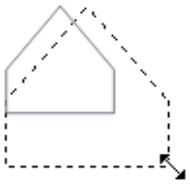
The Center in Work Area command on the Page tab moves all the objects in the drawing so that they are centered in the minimum number of pages needed to print them. See Centering the Drawing .

See also The Position and Size Dialog

Re-Sizing Objects

Resizing with the Mouse

To change the size or shape of an object, click on it to select it, and then click on one of the grow handles (black squares) and hold the mouse button down. Dragging the mouse drags the handle and changes the size of the object.



Growing an object by dragging a handle

Only one object at a time can be resized this way.

Proportional and Non-Proportional Growth

Some standard shapes, like rectangles and many of the library symbols, can be sized to any proportion. Others, such as the standard circle, maintain their proportions when re-sized.

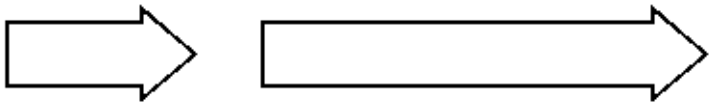
The side handles on a shape, such as a rectangle, will stretch the object only in the direction perpendicular to that side. Handles at the corners stretch the object all directions simultaneously.

Proportional shapes (like circles) have no handles on their sides, and their corner handles grow the shape proportionately.

For shapes that can be stretched to any proportion, such as rectangles, holding down the Ctrl key while dragging with the mouse makes a perfectly regular version of that shape (for example a square in the case of a rectangle and a circle in the case of an oval).

Holding the Shift Key while resizing forces a shape to grow proportionally. However, for shapes that can normally be sized only proportionally, holding down the Shift Key while dragging with the mouse allows them to be sized non-proportionally.

Some of the standard shapes found in the Standard Shapes Library have a special "smart" resizing property by which some key components keep their original proportions, even while the rest of the shape is resized. The arrow shape is one example: the arrowhead keeps its original shape even when the whole shape is elongated.



Original Stretched

Some Freeform polygon shapes have additional, special growth and resizing properties. See Creating Closed Freeform Shapes for more details.

Sizing with the Arrow Keys

You can use the arrow keys to resize a shape very precisely. Pressing an arrow key, while holding down the Shift Key, increases or decreases the size of the object by one screen pixel (1\100 of an inch at normal viewing magnification) with each keystroke. The right and down arrows increase the size at the right and bottom. The left and up arrows decrease the size at the right and bottom.

If you have selected more than one object, the resizing affects all of them.

Make Same Size

The Make Same command on the Design tab can be used to make all selected objects the same size as the selected target object. See Making Objects the Same Size.

Resizing Grouped Objects

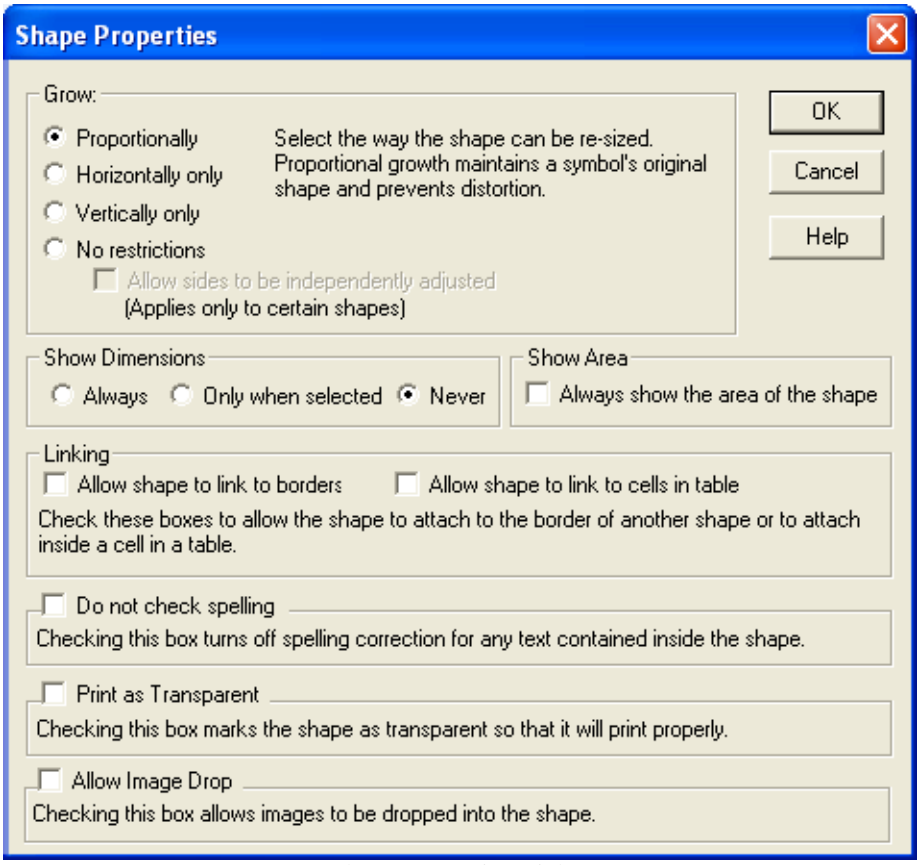
Objects may be combined into Groups. When grouped they may be sized proportionately as a single object. See Grouping and Ungrouping Objects.

See also The Position and Size Dialog

The Shape Properties Dialog

The **Shape Properties Dialog** allows you to change the resizing, linking, and many other behaviors of a shape.

To open the Shape Properties Dialog for a selected shape by clicking **Shape Outline** on the Design tab.



Shape Properties Dialog

The properties you set in this dialog affect only the **selected shape on the page**, not the master copy of the shape on the toolbar or in a symbol library.

There are four choices of sizing behavior:

1. Proportionally- The object has four growth handles (one at each corner) and maintains its proportions when re-sized. Imported images (and many library symbols) are initially set to resize proportionally.

2. Horizontally Only- The object has only two growth handles and can be resized only in the horizontal direction.

3. Vertically Only - The object has only two growth handles and can be resized only in the vertical direction.

4. No restrictions - The object can grow in all directions without maintaining proportions. These objects have eight growth handles, four on the corners and four on the sides.

If the shape is a Freeform polygon, checking the box labeled **Allow sides to be independently adjusted** causes dimension labels to appear on all sides of the shape. Otherwise, the dimensions shown are those of the invisible rectangle that encloses a shape.

Show Dimensions allows you to add automatic **Length Labels** to the sides of the shape, which change dynamically to display the current length in the units displayed on the rulers. You can choose whether the shape will show its dimensions Always, Never, or Only When Selected.

Show Area displays the calculated area of a shape, in its center, in the units of the rulers. This command only works for the 24 native toolbar shapes and for polygons created with the Freeform drawing tools.

Allow Shapes to Link to Borders allows you to position a shape so that it attaches to another shape's border, via its attachment point (usually in the center).

Allow Shape to Link to Cells in Tables permits the shape to be positioned on a table cell, where it will attach and "stick". See Shape-Linking in Tables.

The **Do not check spelling** check box turns off (or on) spelling correction for the text inside this particular shape. This is useful if you want to keep spelling correction turned on for your drawing in general, but want it off for a particular shape that contains a proper name or some other unusual text. When you group objects, spelling correction is turned off for text inside the group. You can turn it back on again with this setting.

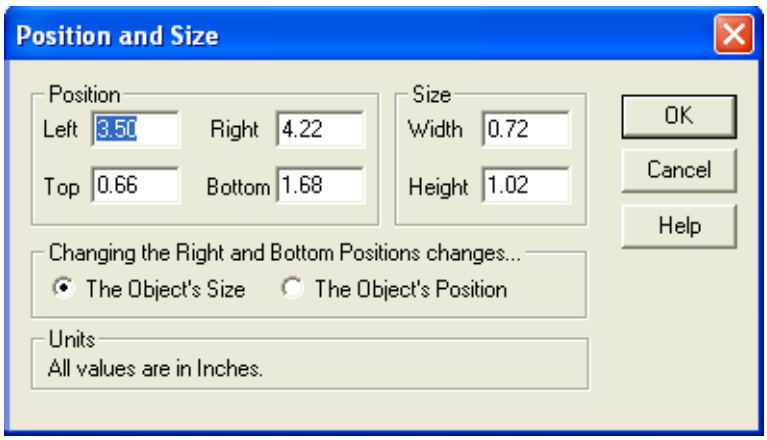
Print as Transparent will make the selected shape transparent when you print your drawing.

When an image is dragged onto a shape, **Allow Image Drop** permits the image to be dropped into the shape to make one object.

The Position and Size Dialog

You can specify the exact size and position of an object using the **Position and Size Dialog**. The values are in the same coordinate system as the rulers.

You can open this dialog by (a) selecting an object and then clicking the **Position and Size** Dialog Launcher ( ) on the **Design** tab, or (b) right-clicking on the object and selecting Position and Size from the menu.



The Position and Size Dialog

You can specify the coordinates of the left, top, right, and bottom of the object in the units shown.

Changing the left and top values also changes the right and bottom, shifting them to maintain the same width and height.

The two radio buttons control whether changing the object's bottom or right value changes the object's size (by leaving the left and top unchanged) or changes the object's position (by changing the left and top to maintain the dimensions).

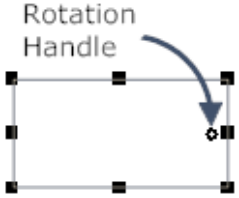
The position dialog for a line, unlike that for shapes, allows you to enter the length of the line.

Also, to help you position objects, the **Status Bar** in the lower-right corner of the document window displays the coordinates of the cursor and the dimensions of any currently selected object.

Rotating Objects

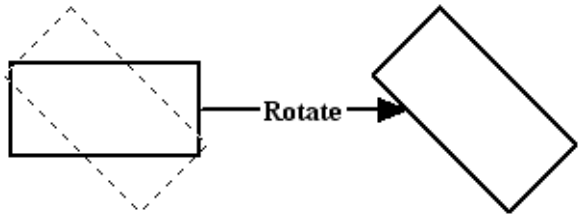
Shapes, symbols, text, straight lines, and curved lines can be **rotated** to any angle.

You can do this manually by dragging the **rotation handle** (which looks like a small circle) on a selected object. The cursor changes to the "rotation" shape when positioned over a rotation handle.



A Rotation Handle

Click on the rotation handle and drag with mouse. The shape rotates around its center point.



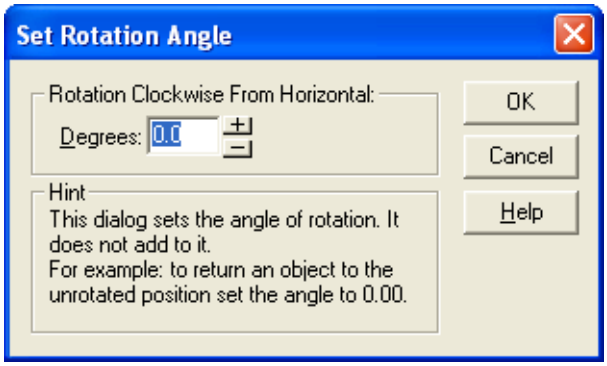
Rotating a Shape

When the Snap to Grid feature is turned on, the angle of rotation snaps in increments of 15 degrees (15, 30, 45 and so on.).

The Rotate Command

You can also rotate objects using the **Rotate** command on the **Design** tab.

Choose one of the standard options, or pick **Custom** to bring up the **Set Rotation Angle Dialog**.



Set Rotation Angle Dialog

Rotating Multiple Objects

The rotation command will affect **all** selected objects. This allows you to rotate a group of objects all at once.

When you have selected several objects, the angle shown by default in the Set Rotation Angle dialog is the one associated with the last object selected (known as the Target Object), if that object has already been rotated.

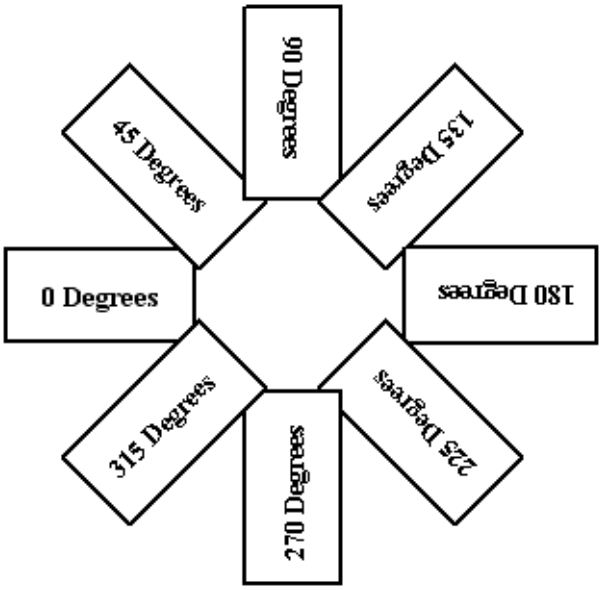
This allows you to align the any number of objects to match the angle of another object. While holding the **Shift key** down, select the objects that you wish to align, selecting the Target Object last. Then choose Rotate from the Design tab, then

Custom. The default angle shown will match the rotation of the Target Object, and clicking OK will rotate the other objects to match it.

You can rotate straight or curved lines, shapes, library symbols, and most imported images. You cannot rotate the Shape Connecting (segmented) Lines, bitmap images, and the Automatic Connector Lines used in Org Charts.

Objects **linked** to others do not rotate. (Since they cannot maintain their link if they do.) However, you can rotate a shape or line before you link it to another. Objects that cannot rotate do not have a rotation handle.

When an object is rotated, the text associated with it rotates too.

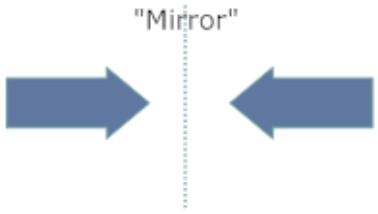


Rotated Shapes with Text

Flipping Objects

All objects, except bitmap images, can be **flipped** horizontally or vertically.

Horizontal flipping reverses an object as if it were reflected in a mirror **next to** it.



Horizontal Flipping

Vertical flipping reverses an object as if it were reflected in a mirror **above or below** it.

Vertical Flipping

Text you have entered into the object is unaffected by flipping.

You can use Flipping to generate additional line shapes from those available on the **Change Connector Shape** and **Change Line Shape** menus.

Changing a Connector Shape with the Flip Command

Deleting Objects

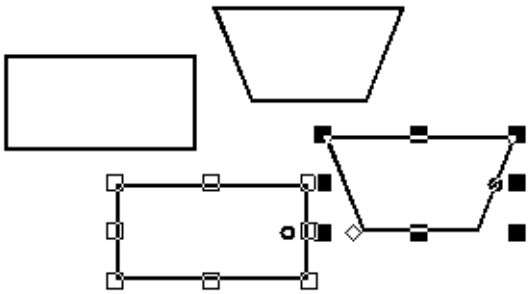
Delete objects from the page by selecting them and then typing either the **Delete key**, or the **Backspace key**.

See also Selecting Objects

See also Selecting Multiple Objects

Duplicating Objects

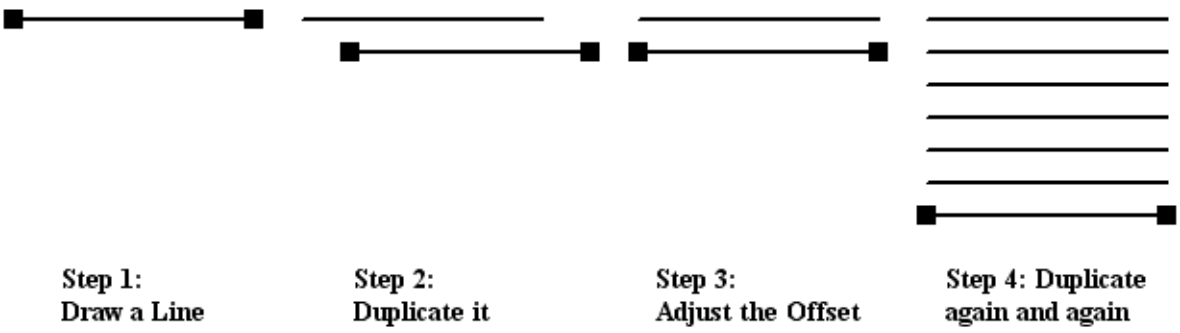
The **Duplicate** command under the **Paste** button in the **Home** tab makes a copy of the selected object and adds it to the page, offset by a small distance from the original object.



Duplicating Two Selected Objects at Once

The duplicate object (or objects) appears on the page in its selected state. If you immediately click on the new object and move it, without deselecting it first, the **new** distance between it and the original is used as the default offset for any further duplications. You can use this feature to create neat rows and columns of evenly spaced objects.

The illustration below shows the steps involved in making a column of evenly spaced lines.



Changing the Appearance of a Drawing

Changing the Appearance of Shapes

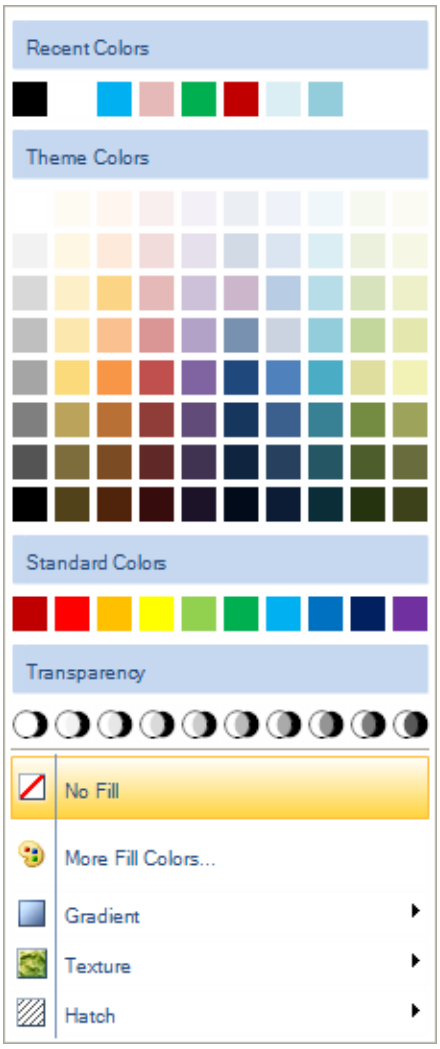
Shapes are closed polygon objects with lines around their borders and a fill-able area inside.

The Standard Shapes available from the Shape Tool on the **Home** tab and closed shapes drawn with the Polygon Line and Freehand Line tools on the Drawing Area Toolbar, are all considered Shapes.

The **Home** tab contains commands to change the fill color, fill texture, and border style of selected shapes on the page.

The Fill Command

The **Fill** command changes the fill color or texture **inside** a selected shape. This fill will then become the default for any new shape added to the page. Imported digital images and library symbols that are not re-colorable are not affected by fill color.



The Fill Menu

The fill color can be **transparent**, which means that the background of the drawing shows through the shape. (Note: To select a shape with a transparent fill you must click on its border.)

You can also pick from any of the 16 million colors supported by Windows using the **More Fill Colors** command on the Fill menu.

The **Gradient Fill** creates a fill color that grades smoothly from one color to another. If you want to create a custom gradient fill, see Defining Your Own Gradient Fills.

A Fill **Texture** can be a **pattern** or **image** such as a photograph. In addition to the ready-made textures found under the menu, you can import any image of your own to create a custom texture, using **Add Texture in** the Select a Texture dialog box. See Changing Texture Properties.

Hatch patterns fill a shape will a pattern of monochrome lines or dots. The color of the hatch matches the shape border color and is set by the Line command on the Design tab. See Changing the Appearance of Shape Borders.

Quick Styles

You can quickly change the fill and other properties of a shape all at once by choosing one of the ready-made Quick Styles shown in the left part of the Design tab.

Changing the Appearance of Shape Borders

Shapes have a **border** around their edge. The color and style of the border are set using the **Line** command on the **Design** tab.

The border can be filled with color or texture just like a shape. Its style may be dotted, dashed, or solid, double-lined, in a choice of several different thicknesses. When the thickness is changed the borders grow towards the center of the shape.

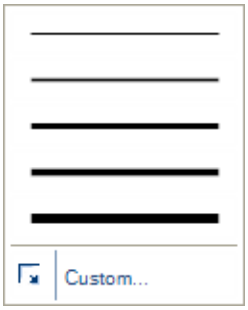
Shapes may have no border (**None**). These shapes must have a different fill color from the background or they will not be visible.

Border Fills

The fill color and texture of a border behave just like the fill of a shape but they apply to the **inside** of the shape border itself. See Changing the Appearance of Shapes for a description of fill properties.

Border Thickness

The **Thickness** menu appears under the **Line** button in the **Shape Styles** group of the **Home** tab and it changes the border thickness of a selected shape.



The Thickness Menu

Dashed Borders

The **Dashes** menu appears under the **Line** button on the**Shape Styles** group of the **Home** tab.

You can choose a variety of dashed line styles for a shape border. The double-line style is also found on this menu.

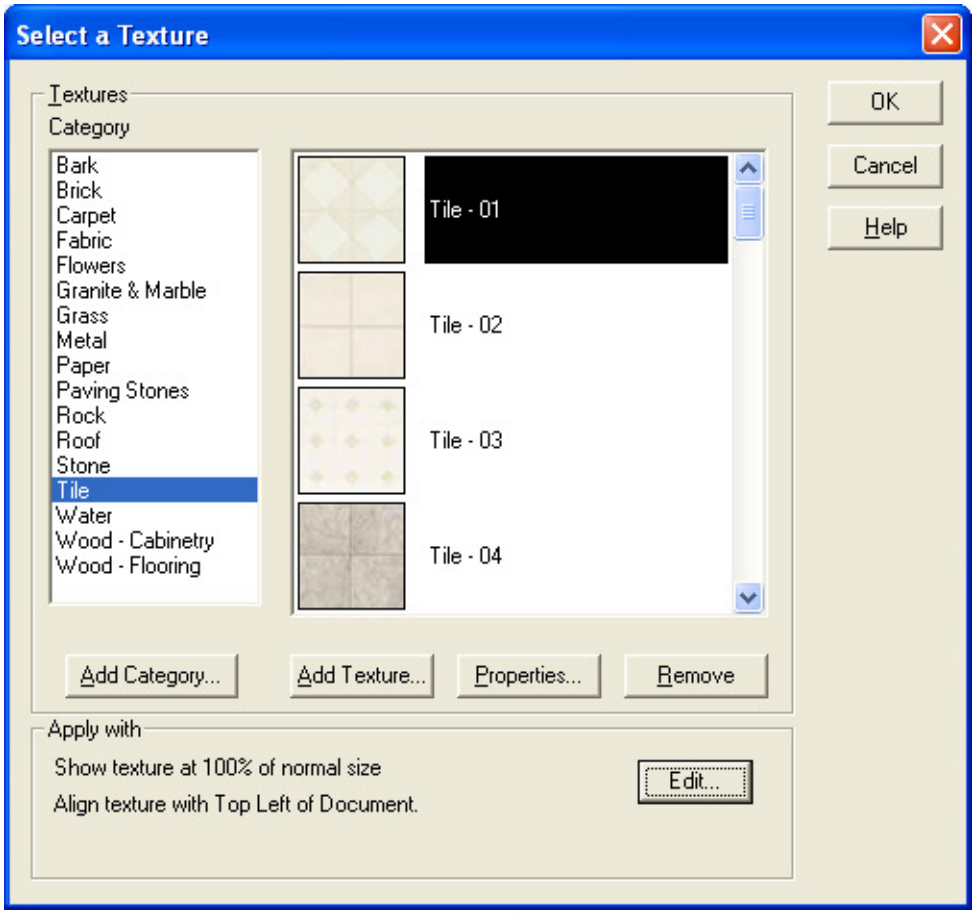
The Dashes Menu

Changing Texture Properties

The **Properties** and **Edit** commands in the **Select a Texture Dialog** box allow you to modify new and existing textures. To find this dialog box, on the **Home** tab click **Fill**, then **Texture**, then **More Textures**.

The **Properties** button allows you to permanently change the default settings for the selected texture. The **Edit** button only changes the properties of the current selected object leaving the default texture settings available.

Using the **Properties** or **Edit** button brings up the **Set Texture Application Parameters** dialog box.



Texture Dialog

Scale

You can scale a texture two ways: 1) Size the texture to a percentage of its normal size, or 2) Scale the width of the texture to an exact size in the units of the rulers.

You can adjust the scale percentage between 25% and 400%.

In a floor plan with the default 1\4-inch scale (where 4 ft equals one inch on the screen), setting the scale of the texture to be 1 foot across would give you 4 tiles representing 4 feet on the screen. The word 'tile' here does not refer to floor tile, but to the square of texture shown in the dialog.

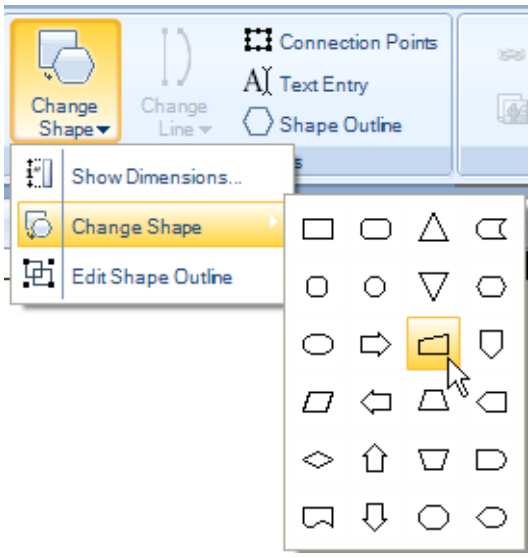
Alignment

By default, a texture will align with the top left of the page. You can change the texture alignment to begin at the: Top Left, Top Center, Top Right, Center Left, Center, Center Right, Bottom Left, Bottom Center, or Bottom Right of either the page or the shape the texture fills.

The built-in textures will repeat in a seamless continuous pattern. Any textures you create or import may show discontinuities at the edges of the tiles unless you design them specifically to tile together seamlessly.

Change Shape

The actual *shape* of a selected shape on the page object can be changed to any of the other 24 standard shapes, using the **Change Shape** menu found under **Change Shape** on the **Design tab**.



Change Shape Menu

Any selected shapes are converted to the shape chosen from this menu. The command has no effect on library symbols or images.

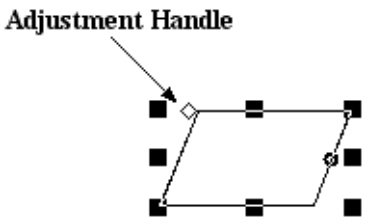
As a shortcut to this command, you can quickly change one shape to another by right-clicking on the shape and choosing **Change Shape** from the right-click menu.

Adjusting Shapes

Many of the standard shapes available from the Drawing Area Toolbar have properties that can be can be **adjusted**.

For example, you can adjust the degree of roundness of rounded rectangles, or the angle between the vertical and horizontal sides of a parallelogram.

These shapes have a special hollow, diamond-shaped **Adjustment Handles** when selected.



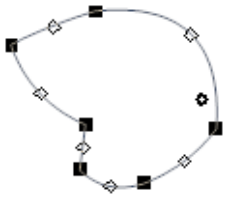
Adjusting a Shape

To adjust one of these shapes, click and drag on the diamond-shaped handle. A dotted outline shows the effect of your change. When you release the mouse button, the shape changes its outline to match the dotted image.

Editing Shape Outlines

Shapes can be completely decomposed into their component lines and curves and then modified using the **Edit Shape Outline** command under **Change Shape** on the **Design** tab.

You can stretch or bend the lines and curves of the shape and then rejoin it to create a new custom shape. See Editing the Outline of Shapes in the freehand drawing section.



Editing the Outline of a Shape

Changing the Appearance of Lines

The **Lines** command on the **Shape Styles** group of the **Home** tab controls the appearance of lines on your page.

A line can be filled with color or texture just like a shape. Its style may be dotted, dashed, or solid, double-lined, in a choice of several different thicknesses.

A Line filled with a colored hatch pattern

Line Fills

The fill color and texture of a line behave just like the fill of a shape. See Changing the Appearance of Shapes for a description of fill properties.

Line Thickness

The **Thickness** menu appears under the **Line** button in the **Shape Styles** group of the **Home** tab.

Thickness Menu

Dashed Lines

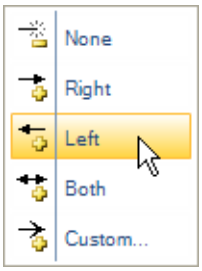
The **Dashes** menu appears under the **Line** button in the **Shape Styles** group of the **Home** tab. The double-line style is also found on this menu.


The Dashes Menu

Arrowheads

You can add arrowheads to either or both ends of any line. The standard arrowheads are always at your fingertips on the Drawing Area Toolbar, and there are 35 specialized arrowhead styles if you need more options

To add arrowheads to a selected line, click the **Arrowheads Tool** on the **Home** tab and choose a position (left, right or both) from the menu.



Custom Arrowheads

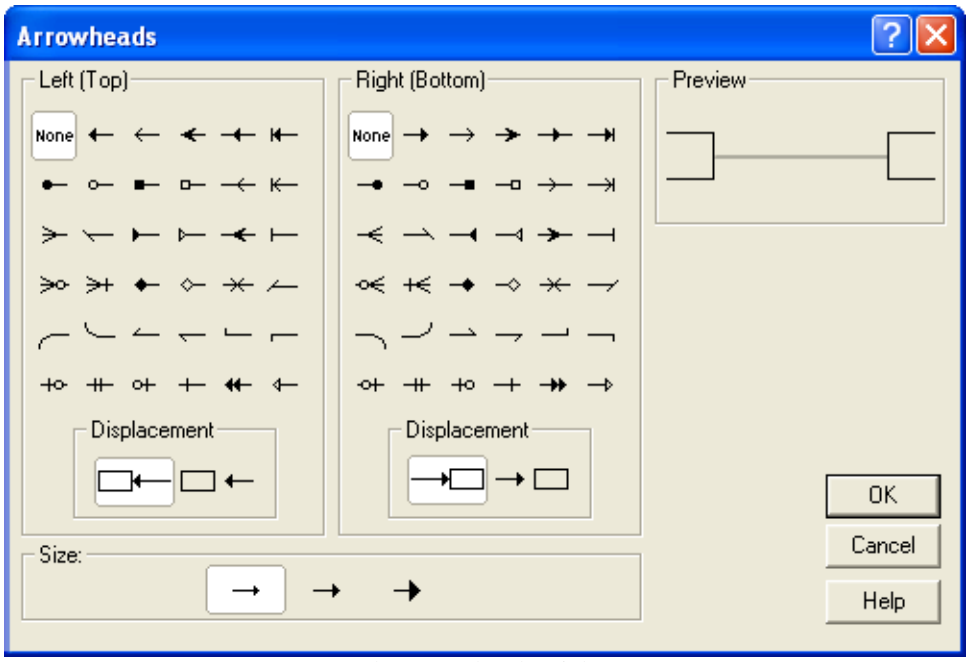
The **Custom** command on the Arrowheads menu opens the **Arrowheads Dialog**, where you can choose from 35 different styles. You can also set the arrowhead Size and Displacement with this function. For details see Custom Arrowheads.

See also Changing the Shape of a Line

Custom Arrowheads

The **Custom** arrowheads command appears on the **Arrowheads** menu, found under **Arrowheads** on the **Home** tab.

Here you can choose from 35 different styles and apply them to either end of a selected line. You can also set the arrowhead **Size** and **Displacement.**



The Arrowheads Dialog

Left (Top)

Clicking on one of the 36 style buttons changes the type of arrowhead that will appear on the left end (or top end if vertical) of the lines currently selected. A preview appears in the preview window. The **None** selection results in no arrowhead at the left end.

Right (Bottom)

Clicking on one of the 36 style buttons changes the type of arrowhead that will appear on the right end (or bottom end if vertical) of the lines currently selected. A

preview appears in the preview window. The **None** selection results in no arrowhead at the right end.

Displacement

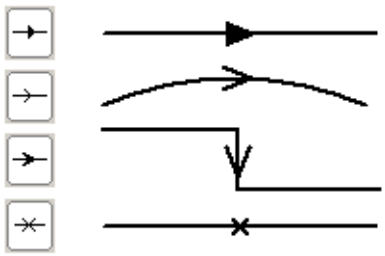
You can specify whether the line touches a shape or falls a little short. If the line is displaced, it does not appear to touch the shape but still remains linked to it. This property can be controlled independently for each end of a line, and does not apply to ends with no arrowhead.

Size

Clicking one of the three size buttons sets the size of the arrows on both ends of the line.

Arrowheads in the Center of Lines

Three of the arrowhead styles place an arrowhead at the center of the line instead of at the end.



Centered Arrowheads

Lines with Different Arrowhead Settings

If you have several lines selected, and their arrowheads have different properties, the arrowhead dialog will show no existing setting for those properties. For example, if two lines have different right arrows, no right-arrow buttons will appear to be highlighted when the dialog is displayed. If you leave the style buttons un-pushed, but you push one of the size buttons, then, when you press the OK button, both arrowheads will change size but they will retain their unique right arrow styles.

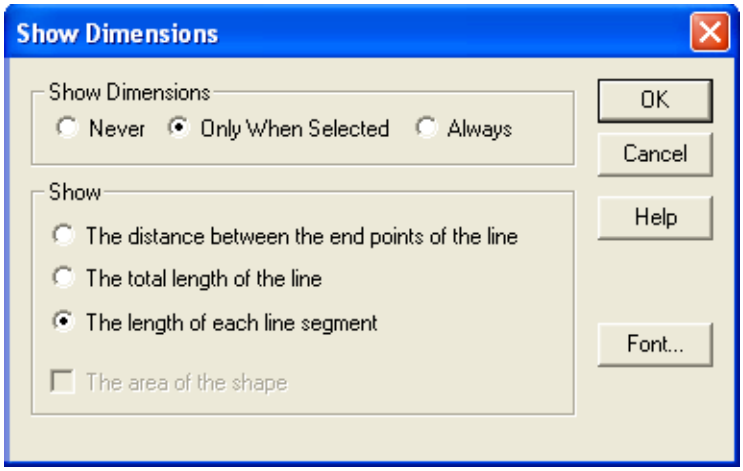
Once assigned, an arrowhead remains fixed on the end to which it was assigned, despite any later changes in the line's direction.

Dimensioning: Showing Line Length

You can add an automatic **Length Label** to any line, and it will change dynamically to display the current length in the units of the rulers.

To show the dimensions of a selected line, choose **Show Dimensions** from either the **Change Line** or **Change Shape** menu on the **Design** tab.

This brings up the **Show Dimensions** dialog.



The Show Dimensions Dialog

You can specify whether the line will show its dimension **Always**, **Never**, or **Only When Selected**.

The Show options are defined as follows:

1. The distance between the end points of a line means the shortest straight distance between the two endpoints, regardless of the actual path of the line. For example, if the line is an Arc, or a segmented line, the actual path of the line will usually be longer than the straight distance between its end points.

2. The total length of the line is the sum of all its segments along its actual path. (The exception to this is the Shape Connector Line, which shows the length of its horizontal segment, so that it can easily be used as a call-out length marker.)

3. The length of each line segment labels each segment with its own separate dimension label.

The length label appears just above the line. For curved or segmented lines, if the **end points** setting is used, the label is shown along an imaginary straight line between the end points.

See also **Shape Dimensions and Area** under The Shape Properties Dialog.

Changing the Background

The **Background** command on the **Page** tab sets the background of the entire document. The background can be a color, texture, or gradient, just like the fill color

of a shape. See Changing the Appearance of Shapes for a description of the **Fill** menu, which behaves identically.

Images exported from a document with a **transparent** background have transparent backgrounds themselves, and they acquire the background color of the document that receives them (whether in SmartDraw or another program.)

Drawings with white, or other colored or textured, backgrounds export images that have opaque backgrounds, no matter where they are displayed.

The background color is also affected when you choose a **Theme** on the Home tab.

Using the Format Painter

You can copy the appearance of a shape or line and transfer it to another object using the **Format Painter** tool on **Home** tab.

First select the shape or line that you want to copy the format from. Then click **Format Painter** on the Home tab. Then click the object you want to apply the format to. It will change its appearance to match the object you originally selected and the Format Painter button will become deselected.

Using the Format Painter

You can change the appearance of several objects, one after another, if you hold the **Shift key** down when you first click on the Format Painter button. This makes the button stay selected as you click on several objects one at a time.

You can also apply the same appearance to several objects at the same time by tracing a selection box around them with the mouse while the Format Painter button is selected.

The format painter transfers the color, border, pattern, and text settings from one shape to another. With lines, it also copies the arrowhead style.

The format painter also works with background text objects and in tables.

Design Effects

The **Effects** command on the on the **Home** Tab allows you to apply stylistic effects to a selected object on your page.

The Glow Effect

Effects include:

Shadow

Reflection

Glow

Bevel

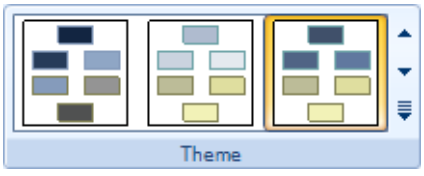
Gloss

Some effects can be applied in combination (for example an object can have Gloss and Shadow), but others are mutually exclusive (for example, you cannot have a Reflection and a Shadow at the same time.)

Effect Defaults

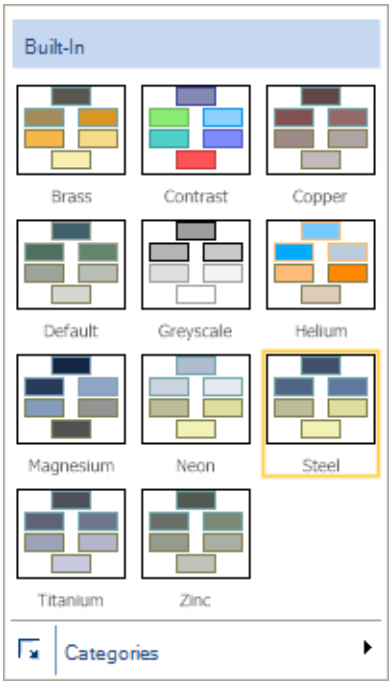
Applying an Effect to an object sets a new **default** Effect style for future objects added to the drawing. This will remain the default, appearing on each new object, until you change or remove it from an object to establish a new default.

Themes



The **Theme** group on the **Home** tab allows you to apply a coordinated, professional-looking visual style to your entire document all at once.

A Theme specifies the colors and textures of the background, shapes, borders, lines, text, and shadows in the document.



The Theme Gallery

Clicking the lowest arrow on the right side of the Theme group on the Home tab displays the Theme gallery. To select a Theme, click on its thumbnail icon in the Theme gallery. You can also click on one of the three thumbnails displayed in the group.

See also Overriding Themes for Specific Objects

Overriding Themes for Specific Objects

After applying a **Theme** to your entire drawing, all the objects will match that Theme.

However, you can override the Theme for any particular object in the drawing by selecting it and using the commands on the Home tab to change its appearance.

Once you override the Theme for an object, that object remains overridden in that document. Furthermore, it sets the default for new objects added to the document. They will display your override style rather than the default Theme style.

For example, a box may be blue in the current Theme, but if you fill it with red, any future shapes added to this drawing will be red, until you change the default again.

You can force all of the objects, even overridden ones, in the document to **revert** to the original Theme by temporarily switching to a different Theme, then switching back to your desired one. This resets all the objects to that Theme.

Working with Text

Creating Text

You can create text:

In the standard Shapes that are available from the Shape button on the Home tab.

Inside or adjacent to most library symbols.

Inside Table cells.

As B*ackground Text Objects*, freestanding pieces of text that you can drag and position where you want.

 The basic way to create text is to use the **Text Tool** on the **Home** tab.

Entering Text in Shapes

Shapes are made to contain text and carry it with them when the shape is moved. A shape can be opened for text entry by:

Selecting (clicking on) it and starting to type.

Double clicking on the text area inside the shape.

Pressing the text button (A) on the toolbar and clicking once on the shape.

After entering the text, **click in the page background to finish**.

Entering Text in Library Symbols

Many Library Symbols can contain text. Some hold the text inside the symbol, and others position it outside, (above, below, beside) the symbol by default. For more information see Changing the Settings for a Symbol.

Background Text

You create **Background Text Objects** by clicking the **Text Tool** then clicking in an empty part of the drawing background and typing. After typing the text, click in an empty part of the drawing background to finish. The text object can then be dragged to any position you want. For details, see Entering Background Text

Text Editing

When a shape, symbol, or background text object is opened for text entry or editing, the standard Windows insertion point appears. This is a flashing vertical line.

All of the normal conventions for Windows text editing apply: Dragging with the mouse selects text (which is then shown in inverted color). Selected text can be cut, deleted or copied. The font, size, style and color of selected text can be changed using commands on the **Home** tab on the Main Toolbar.

Aligning Text

Whether text is inside a shape, or freestanding as a text object, you can set its alignment with the **Alignment** command on the **Home** tab.

Align Text

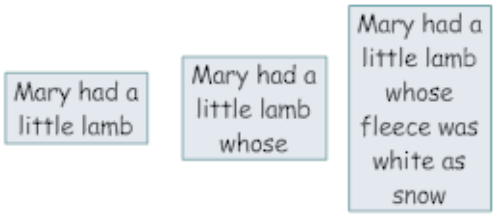
Simply choose one of the nine options from that menu.

Alignment affects both the way text is **displayed** within the object, and the way the object **grows** when text is added. Different alignments may be applied to individual paragraphs within the same object.

Changing the alignment of a **background text object** often has little noticeable effect because the text fits inside its (invisible) bounding shape exactly. Changing its alignment to right or left has no visible effect when the text is already touching both sides of its bounding shape. However, the direction that the background text object will **grow** when text is added is affected.

Automatic Text Resizing

As you add text inside one of the standard Shapes available from the Home tab, the text wraps inside it until the shape is full. Then, as you enter more text, the size of the **shape grows** automatically to accommodate more text.

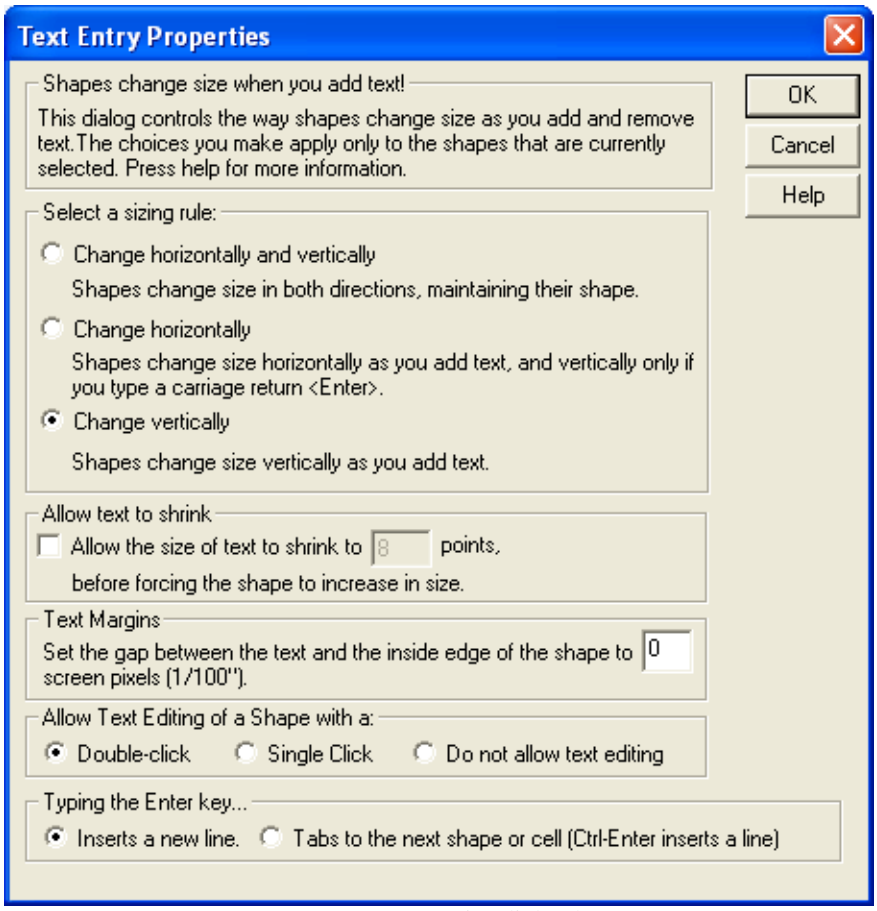


The way an object grows to accommodate more text is determined by both the alignment of the text in the object, and the sizing rules specified for that object in the Text Entry Properties dialog box.

Text Entry Properties

You can change the text entry properties for a selected object by choosing **Text Entry** on the **Design** tab.

This opens the **Text Entry Properties** dialog box.



Text Entry Properties dialog box

This dialog allows to you to set:

The way objects grow as you add text

The gap between the edge of the object and the text it contains

How to begin text entry by clicking with the mouse.

Text Sizing Rules

There are three different ways objects can grow as you add text.

1. Horizontally and Vertically

The object grows so as to maintain its proportions.

Horizontal and Vertical Text Sizing

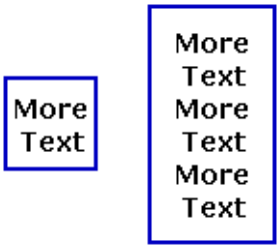
2. Horizontally

This is the default for background text objects and for the text that appears below or above image-objects and library symbols. New text is added on the current line. New lines occur only when the Enter Key is typed.

Horizontal Text Sizing

3. Vertically

This is the default for most shapes. The width of the object stays constant, and the object grows vertically as new lines are added.



Vertical Text Sizing

Effect of Text Alignment

As an object grows according to these rules, it maintains a fixed point based on its text alignment. If text inside an object is centered, the center of the object remains fixed and the object grows outward from the center. An object with left-aligned text remains fixed at its left edge and grows on the right. Objects with top-justified text grow downward, and so on.

Allowing Text to Shrink

You can force the text inside an object to attempt to shrink before it causes the object to grow, by checking **Allow Text to Shrink**. You can specify the minimum size that the text will shrink to before it forces the object to grow.

Text Margins

The gap between the edge of the text inside an object and the inside edge of the object border is set using the Text Margins control. It is adjustable in increments of 1\100 of an inch and defaults to 2.

Text Entry and Mouse Clicks

The three **Allow Text Editing with a...** choices allow you to set whether a single-click or a double-click on an object opens it for text editing, or whether it can be opened for text editing at all.

Most objects require a double-click for text editing. (A single click is used to move and select them.) Tables, on the other hand, normally require only a single click to begin editing in a given table cell.

Do not allow text editing prevents anyone from changing the text in an object or a cell in a table. It is used extensively in forms to prevent users from accidentally changing the field labels while filling in the blank spaces on the form.

Text Entry and the Enter Key

Normally, typing the **Enter Key** inserts a new line into the text you are editing. Opting to have the Enter key **Tab to the next shape...** causes an **Enter Key** to behave like the **Tab Key** and move you to the next shape in the drawing, or the next cell within a table. In this case **Shift- Enter** moves back, just like **Shift-Tab** does normally. This can be a useful setting for forms.

To **add a new line** while in this mode hold the **Ctrl Key** while you type the **Enter Key.**

Defaults

All of the settings you make in the **Text Entry Properties** dialog for an object become the defaults for newly created objects, with the important exception of the mouse-clicks setting.

Entering Background Text

 When the **Text Tool** on the Home tab is selected, clicking in the empty background of the page starts a text entry session. The text you type creates a new object called a **Background Text Object**.

This is a *rectangle* shape with an invisible border and a transparent fill. The text resides in this invisible object.

Background text objects behave like other rectangular shapes. You can select them for editing by clicking on them. You can drag them from place to place, or change their properties (fill color, border color, font, etc.) using the commands on the Main Toolbar.

Unique Properties of Text Objects

Text objects do have some properties that differ from normal objects. They align with the **Grid Snaps** along the **baseline** of the first line of text, not their center or top-left corner like other objects.

Text Objects are automatically removed from the drawing if all their text contents are deleted, so that your drawing does not become littered with invisible empty text objects.

Text Entry and the Tab Key

If you are entering text into an object, typing the **Tab key** selects the next object in the drawing according to the *tab order* and opens it for text editing. **Shift-Tab** does the same in the reverse order.

You can use this feature to enter text in your objects the way you would fill in a form: Double-click on the first object and enter text. Then tab to the next object, enter text, tab again and so on.

If you are entering text in a table, the **Tab key** moves you to the next text entry field in the table. Once you reach the last table field, a tab takes you to the next object.

You can enter a *tab character* into an object by typing **Ctrl-alt-tab**.

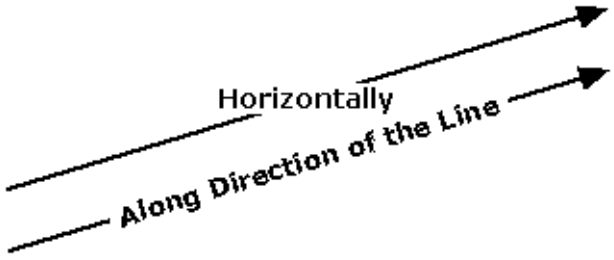
See also: **The Tab Order** in Changing the Front-to-Back Order.

Attaching Text to Lines

You can attach text directly to lines, and it remains attached when you move the line.

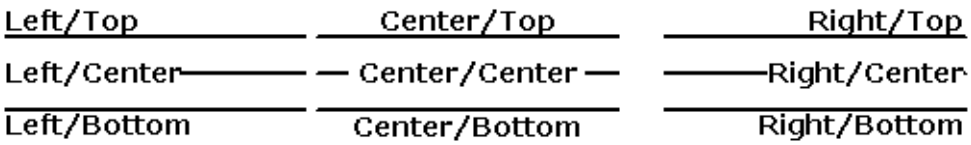
Simply select a line and begin typing. A Background Text Object will be created and attached to the line, typically in the center.

You can set the orientation of the text by choosing **Direction** on the **Home** tab.



Text attached to a line

To change the **position** of the text on the line, use the **Text Alignment** commands on the **Home** tab.



Text Alignment and Lines

You can change the alignment while either the line, or the text, is selected.

By default, text lying centered on the line has an opaque background that hides the line underneath. When text is added below or above the line, the text is given a transparent background so that the line shows through.

You can show the line through the text by selecting the *text object* itself and changing its fill color to transparent, using the **Fill** button on the **Home** tab.

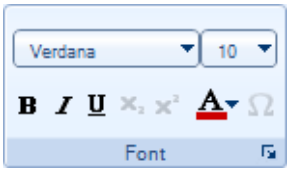
Setting the Text Position for Imported Objects

Similarly to lines, imported objects can have text attached to them, and it can be placed in various positions. You use the **Text Alignment** command to position it, the same way you do for lines. You simply select the object and choose one of the Text Alignment options on the Home tab.

See also: Dimensioning: Showing Line Length

Changing Text Fonts, Size and Style

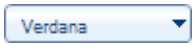
You can change the font, size and style of selected text using commands on the **Home** tab.



The Font Group

Any time you change the text properties, it sets a new default for future text added to this drawing.

Font



This shows a list of all True Type fonts in the system. If none is highlighted, the range of text or objects selected has more than one font. Leaving this list un-selected will result in no change to the font.

Size

 This shows a list of sizes for the selected font. If the size you want is not listed you may type it in the size field. If no size is highlighted, the range of text or objects selected has more than one size. Leaving this list un-highlighted will result in no change to the size.

Style

 The commands for **Bold, Italic,** and **Underline** change the selected text to that style.

Superscript\Subscript

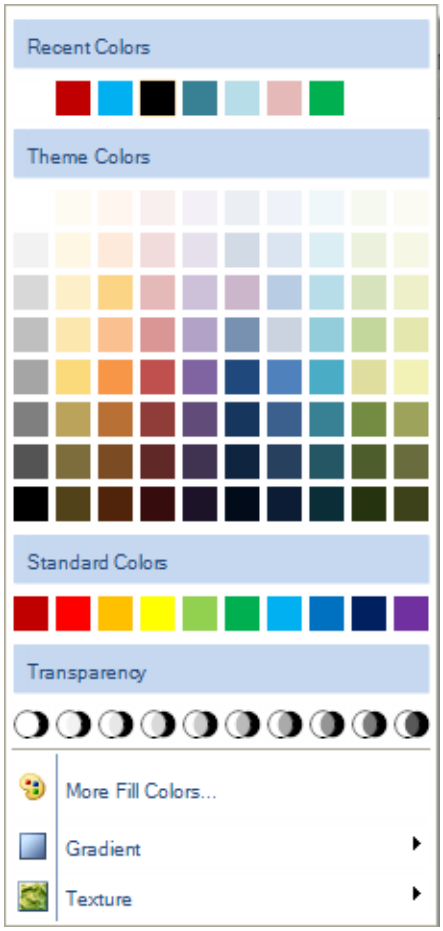
 Clicking one of these commands changes the selected text to a superscript or subscript.

 If you prefer, you can also change the text properties using the old-fashioned Font dialog box, by clicking the down-arrow on the **Font** group titlebar to reveal more commands.

See also The Global Default Font.

Changing Text Color

 You can change the color of selected text using the **Text Color** command button on the **Text** tab.



The Text Color Menu

You can also use a **Texture** or a **Gradient** as your text color, by choosing one of those options from the Text Color menu.

The Global Default Font

Under certain conditions, when you change the font of a piece of text, you establish a new **Global Default Font**, which is stored in your personal settings. This font will become the automatic font for new text in your drawing, and it will even replace the font of existing text in new templates that you open.

Setting the Global Default Font

The global default font is updated any time you **select an object**, or **all of the text in a text block** that you are editing, and change the font. The new font is stored as your new global default font.

Special rules apply to the **size** of the default font:

1. Your personal font size is only updated when the document font size is set between 8 and 14.

2. Only text and cells with the default font AND a point size between 8 and 14 are changed to your personal font size. *Note*: A symbol font can never become your personal font.

Object Shrinking Due to Deleting Text

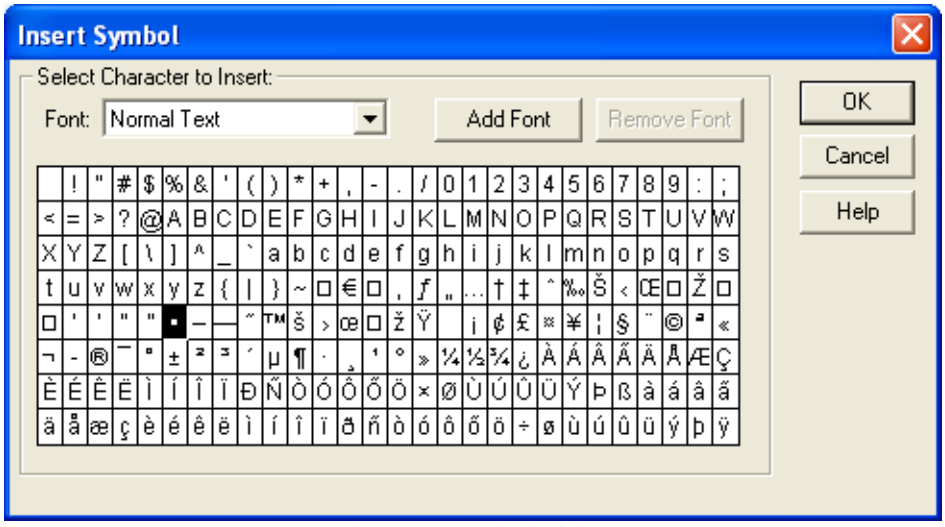
If an object has been forced to grow from its original size by having text entered in it, then it may shrink again when some or all of that text is deleted.

The object remembers its "real" size (the size it was set to before the text forced it to change) so that it can return to it.

Inserting Text Symbols

You can insert one of the standard **Text Symbols** that are available in most Windows fonts into any object containing text.

On the **Home tab**, click Ω, then choose a symbol from the **Insert Symbol** dialog box.



The Insert Symbol Dialog

You select a symbol by clicking on it and pressing OK, or by double-clicking on it.

If the font drop-down list shows "Normal Text", the typeface of the inserted character is the same as the current font. If a specific font is selected, the inserted symbol has this font.

You can add new fonts, or remove them from the list, using the **Add Font** and **Remove Font** buttons.

Special Characters

SmartDraw supports text entry of the following special characters:

Tab. You can enter a tab character by typing **Ctrl-Alt-Tab**. (Normally tabs move you from one object to another)

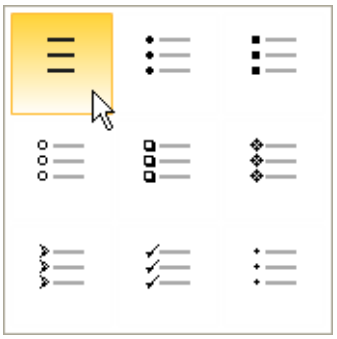
Hard Space. Typing **Ctrl-Space** enters a hard space. This joins two words so that they cannot be separated by word wrapping. Hard spaces are also not hidden at the end of lines when they wrap, like normal spaces are.

Soft Hyphen. Typing **Ctrl-hyphen** enters a soft hyphen. This is invisible but allows a word to be split there by word wrapping, in which case it shows as a hyphen at the end of the line.

Bulleted Text

You can apply bullets to a selected block of text by clicking the **Bullets** command button on the **Home** tab.

Choose one of the nine bullet styles from the gallery to apply it to your text.



Bullets can be applied to all the text inside an object at once by selecting the entire object, or to individual paragraphs by opening the object for text editing (usually by double clicking in it) and selecting just those paragraphs.

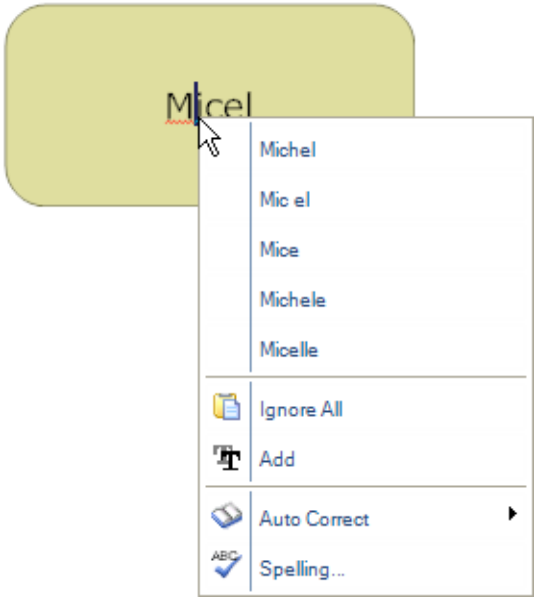
Real-Time Spelling Correction

SmartDraw can check the spelling of your text *as you enter it* if **Check Spelling While You Type** is turned on in the **Spellcheck** menu under the **SmartDraw Button**. Un-checking this option turns off real-time checking. On slower computers, turning off spelling correction while you type will speed up text editing.

With spelling checking turned on, any misspelled words are underlined with a wavy red line.

Misspelled words are underlined with red wavy lines.

Right clicking on the misspelled word shows a menu with alternative spellings and other commands.



Right-clicking on a misspelled word.

If you select one of the alternative spellings, the word is replaced with this selection. The other commands:

Ignore All. Ignores the word for this session.

Add. Adds the word to your user dictionary, so that it is considered correct in all future sessions.

Auto Correct. Adds the word to your user dictionary along with the misspelling, so that if you use that misspelling again, SmartDraw will correct it for you automatically.

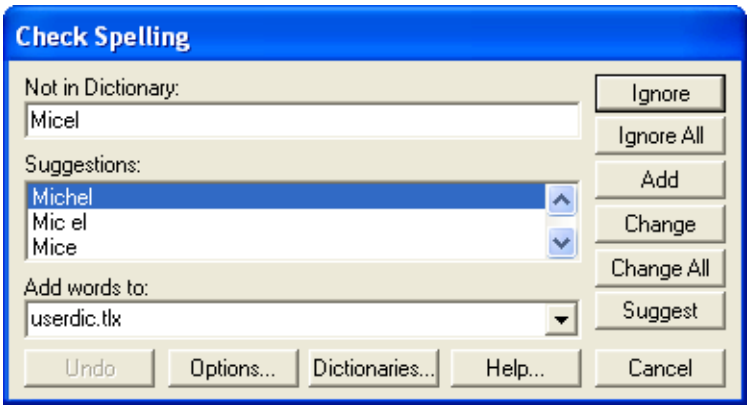
Spelling. This shows the The Check-Spelling Dialog box.

The Check-Spelling Dialog

You can check the spelling of an entire document (or just the selected text or objects) interactively using the **Check-Spelling Dialog**.

You can reach this Dialog by clicking the **SmartDraw Button**, selecting **Spellcheck**, and then clicking on **Check Spelling Now**.

When you use this command to check spelling interactively, either the selected range of text, or the selected object(s), is checked first. You are then given the opportunity to continue to correct spelling in the rest of the document.



The Check-Spelling Dialog box

The Check Spelling Dialog has the following controls:

Not in dictionary

Indicates that a misspelled word was detected. The word is considered misspelled because it could not be located in any open dictionaries. You can type the correct word in this box and hit Change, or choose one of the suggested words below it.

Doubled Word

Identifies a word that appears twice in a row. To ignore this instance click **Ignore**, or to delete the second occurrence of the word, hit **Delete**.

Suggestions

Contains a list of suggested replacements for the word reported as misspelled. This list is filled in automatically when a misspelled word is detected. Subsequent presses of the **Suggest** button may yield more suggestions. A word highlighted in this list will be substituted for the misspelled word by clicking the **Change** button.

Add Words To

This specifies which user dictionary words will be added to when you select the **Add** button. The **Add Words To** list shows all user dictionaries currently open. You can open or close other dictionaries via the **Dictionaries** dialog, which is accessible by selecting the **Dictionaries** button.

Ignore

Causes this occurrence of a misspelled word to be skipped. If the same misspelled word appears later, it will be reported.

Ignore All

Causes this and all further occurrences of this misspelled word to be skipped. You might use this button if the word reported as a misspelling is actually spelled correctly. If the word is one you use frequently, you may wish add it to your dictionary by selecting the **Add** button.

Add

This adds the reported word to the dictionary that is currently selected in the **Add Words To** list. Use the **Add** button if a correctly spelled word you use often is reported as a misspelling (e.g., your family name). If the word is not used frequently, you may want to select the **Ignore** or **Ignore All** buttons instead.

Change

Causes the reported word to be replaced with the highlighted word in the **Suggestions** box, or a word you have typed in the **Not in Dictionary** box to replace the misspelled word. Only this occurrence of the reported word is replaced. If you want this and all following occurrences of the word replaced, select the **Change All** button.

Change All

Causes this and all following occurrences of the reported word to be replaced with the new word. If you want only this occurrence of the word to be replaced, use the **Change** button. If the reported word is one you frequently misspell, you might consider adding it to the dictionary.

Suggest

Search more thoroughly for suggested replacements for the current misspelled word. Each time you press the **Suggest** button, a "deeper" search is made. The **Suggest** button is disabled once all possible suggestions have been located.

Undo

This cancels the last spelling change made.

Options

Opens the **Options** dialog box, where you can set spelling-checker options.

Dictionaries...

Opens the **Dictionaries** dialog box, where you can open or close user dictionaries, and to edit the contents of user dictionaries.

Help...

Opens the SmartDraw user guide with additional information on using the spell ccheck feature.

Cancel

Stops the current spell-checking operation.

Selecting a Spelling Language

You can specify the language used to check your spelling by selecting **Spelling Languag**e in the **Spellcheck** menu under the **SmartDraw Button.**

By default, American and British English are shown on the submenu. The currently selected one is shown with a check mark. The language selection applies to SmartDraw as a whole, not just the document that you are working on. If you would like to add another language, click **More Languages** to download it. SmartDraw supports the following languages.

American English

British English

Brazilian Portuguese

Danish

Dutch

Finnish

French

German

Norwegian

Italian

Spanish

Swedish

These dictionaries are installed with the SmartDraw CD, or via download from http://www.smartdraw.com/dictionaries.htm.

Dictionary Organization

The language dictionaries are stored in the **Spelling** folder inside the SmartDraw program folder. Each language has its own folder inside the Spelling folder. All users on a network share these dictionaries.

The custom dictionaries that users edit are stored in a folder inside their **Windows** folder called **SmartDraw**. Each user on a network has separate personal custom dictionaries.

The Spelling Dictionaries

Pressing the **Dictionaries** button in the **Check-Spelling** dialog, or using the **Spelling Dictionary** command on the **Spellcheck** submenu of the **SmartDraw Button**, opens the **Spelling Dictionaries Dialog**. This allows you to manage your own custom dictionaries, where your own private words (like your name, special acronyms, etc.) are stored.

The Spelling Dictionaries Dialog box

The Dictionary Dialog has the following controls:

Words

This contains the list of words in the currently selected user dictionary, as well as the currently selected word.

Other Word

This contains an alternate word associated with the currently selected word. The other word is used in the **Auto change** and **Conditionally change** actions to supply a replacement word. You can enter phrases of more than one word in the **Other Word** box, but the total length should be limited to 63 characters.

Action

The action tells the spelling checker what to do when it finds a word in the dictionary. The following actions can be selected:

Auto change (use case of checked word)

Automatically replace a word with the Other Word as soon as you type it. For example, if you often type ***recieve*** instead of **receive**, you might enter the word ***recieve*** with **receive** as the Other Word and set **Auto change (use case of checked word)** as the action. The spelling checker will then automatically correct ***recieve*** wherever it appears. If ***recieve*** were capitalized (***Recieve***) the spelling checker would automatically replace it with **Receive**. Note that the replacement is made automatically only if the **Auto Change** option is enabled (see the **Spelling Options Dialog** for information on the **Auto Change** option).

Auto change (use case of other word)

Automatically replace a word with the Other Word as soon as you type it, without considering the case of the replaced word. This action is useful for automatically expanding abbreviations. For example, you could enter the word ***TBD*** with **to be determined** as the other word and **Auto change (use case of other word)** as the action. The spelling checker will automatically replace **TBD** with **to be determined** wherever it appears.

Conditionally change (use case of checked word)

This action is the same as **Auto change (use case of checked word)** above, except that the replacement is only suggested by the **Check-Spelling** dialog. It does not happen automatically.

Conditionally change (use case of other word)

This is like **Auto change (use case of other word)** but is only suggested by the **Check-Spelling** dialog. It does not happen automatically.

Exclude (treat as misspelled)

This action tells the spelling checker that the word is misspelled, even if it is listed in another dictionary. Words marked with this action will never be offered as suggestions for misspelled words, and they will be reported as misspellings when they are encountered by the spelling checker. Note that the spelling checker looks up words in user dictionaries in the order in which the dictionary files appear in the Files list. If you want to exclude a word, make sure it doesn't appear in a previous user dictionary.

Ignore (skip)

This action tells the spelling checker that the word is spelled correctly, and can be skipped over. This is the most common action.

Add Word

Adds the word entered in the **Words** box to the currently selected dictionary. The currently selected action and other word are associated with the word. You can use the **Add Word** button to change the action or other word associated with an existing word. Note that the **Add Word** button is enabled only when a word is typed in the **Words** box. The words you add may contain nearly any character, but only words that contain embedded periods should have trailing periods (e.g., U.S.A. is OK, but USA. is not).

Delete Word

This causes the word appearing in the **Words** box to be removed from the currently selected dictionary. The associated Action and Other Word are also removed.

Files

This contains the list of open dictionary files. When you select a dictionary file from the list, its contents are displayed in the **Words** list.

Add File

This opens a user dictionary file. When you select the **Add File** button, a dialog appears which you can use to select the dictionary file to open. The set of open dictionary files is remembered, so once you add a dictionary file you don't need to add it again. If you need to create a new user dictionary, use the **New** button. You can open other applications' user dictionary files, including those of Microsoft Office.

Your Office user dictionary is usually called **custom.dic**. Search for this file and add it to the file list and you can share a common list of your personal words with SmartDraw.

Remove File

This closes the currently selected dictionary file. Closed dictionaries are not checked during a spelling check. Although the file is closed, it is not deleted. Closed dictionary files can be later reopened using the **Add File** button.

New File

This creates a new user dictionary file. When you select the **New** button, a dialog appears which you can use to specify attributes of the new dictionary.

Export

This saves the contents of the currently selected dictionary to a text file. When you select the **Export** button, a dialog appears which you can use to select the name of the text file to which words in the dictionary will be exported. The words are written to the file one per line.

Import

This adds the words contained within a text file to the currently selected dictionary. When you select the Import button, a dialog appears which you can use to select the text file to be imported. Each word in the selected file is loaded into the dictionary.

Language

This displays the language (e.g., English, or French, etc.) of the words in the currently selected dictionary.

New Dictionary Dialog

You can use the **New Dictionary Dialog** to specify the attributes of a new user dictionary.

File Name

Contains the name of the disk file used to hold the new dictionary's contents. You can enter a name here or use the Browse button to display a dialog showing the names of other dictionary files.

Browse

Displays a dialog, which shows the names of other user dictionary files. You can use the dialog to view the names of existing dictionary files, and to enter the name of the new dictionary file.

Language

Specifies the language (e.g., French, English) of the words the new user dictionary will contain. If the language you want to use is not listed, select "Other. "

OK

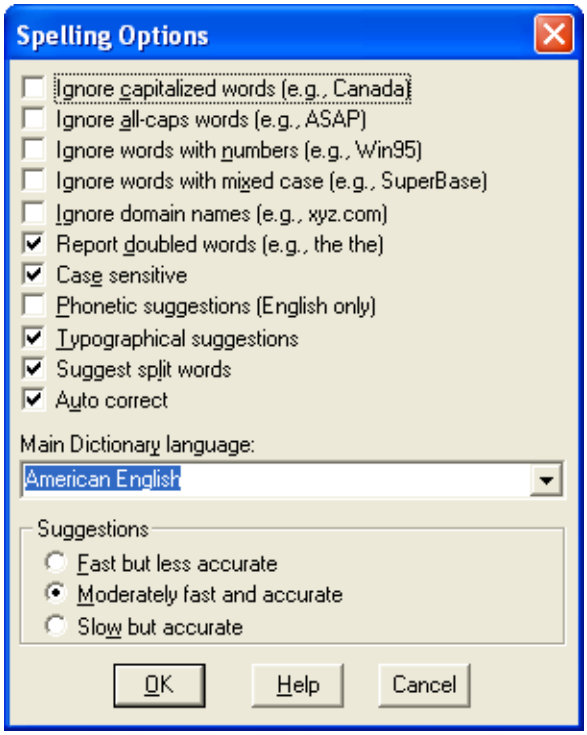
Closes the **New Dictionary Dialog** and creates the new dictionary.

Cancel

Closes the New Dictionary Dialog without creating a new dictionary.

Spelling Options

The **Spelling Options** command opens the **Spelling Options Dialog** box. This lets you specify several options that affect the way the spelling checker operates.



Spelling Options Dialog

Ignore Capitalized Words

When enabled, any words beginning with a capital letter are ignored (i.e., are skipped over without being checked). You might enable this option if the text being checked contains many proper names.

Ignore All-Caps Words

When enabled, any words consisting entirely of capital letters are ignored. You might enable this option if the text being checked contains many acronyms.

Ignore Words with Numbers

When enabled, any words containing embedded digits are ignored. Examples of such words include **Win95** and **Q4**.

Ignore Words with Mixed Case

When enabled, any words containing an unusual mixture of upper- and lower-case letters are ignored. Examples of such words include **SmartDraw** and **Caps Lock**.

Ignore Domain Names

When enabled, any words containing a domain name will be ignored. You might have this checked if the text being checked contains email addresses or websites.

Report Doubled Words

When enabled, any word appearing twice in a row is reported via the **Check Spelling Dialog**.

Case Sensitive

When enabled, a distinction is made between capitalized and non-capitalized words. For example, **canada** is considered different from **Canada**, so **canada** would be reported as a misspelling. When the option is disabled, **canada** and **Canada** are considered identical. Note that the performance of the spelling checker will be reduced if this option is disabled.

Phonetic Suggestions

When enabled, suggestions are made on the basis of phonetic (sounds-like) similarity to the misspelled word. This option tends to improve suggestions for badly misspelled words. Enabling this option will increase the time required to locate suggestions. Note that either this option or the **Typographical Suggestions** option must be enabled or no suggestions will be offered.

Typographical Suggestions

When enabled, suggestions are made on the basis of typographical (looks-like) similarity to the misspelled word. This option is appropriate for people who are generally good spellers. Note that either this option or the **Phonetic Suggestions** option must be enabled or no suggestions will be offered.

Suggest Split Word

When enabled, two separate words will be suggested as a replacement for a misspelling containing two joined words. For example, **is the** would be suggested as a replacement for **isthe**.

Auto Correct

When enabled, words marked with **Auto Change** actions will automatically be changed to their specified replacements. When disabled, you will be prompted before the words are changed.

Suggestions

Determines the speed and accuracy of the initial search for suggested replacements for misspelled words. When a misspelled word is detected, a search is automatically made for suggestions. This option controls the speed and accuracy of this automatic search. Pressing the **Suggest** button in the **Check-Spelling** dialog causes an increasingly more accurate (but slower) search for suggestions, with each successive click.

OK

Closes the Spelling Options Dialog and returns you to your document.

Help

Opens the help topic associated with spelling options.

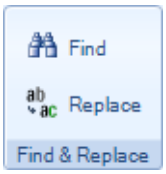
Cancel

Closes the Spelling Options Dialog.

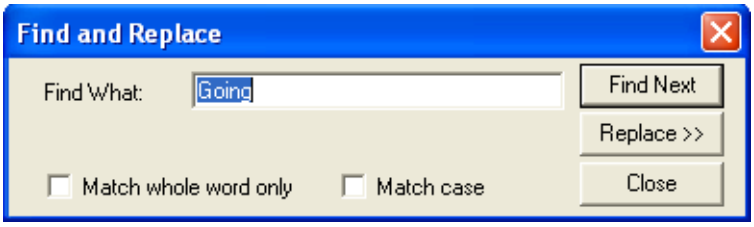
Find and Replace

As with most text-editing programs, SmartDraw can find any word or string of words in your drawing, and if you like, replace it with a different word or words.

The **Find** and **Replace** commands appear on the **Page** tab.



Clicking either the Find button or the Replace button displays the **Find and Replace Dialog.**



Find and Replace Dialog

You can enter any *target string* into this dialog. If you press the **Find Next** button, SmartDraw will search for a match. Once a match is found, it is highlighted and scrolled into view. Pressing **Find Next** again finds the next occurrence.

Initially only the selected range of text is searched. This is either the selected range of text within an object, or the selected object(s) or table. Once all selected instances of the target word have been examined, you are then given an opportunity to search the remainder of the drawing.

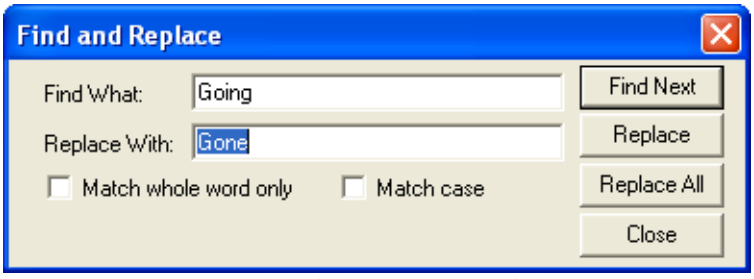
Normally SmartDraw searches for the target string without regard to upper or lower case, and it will report matches that are not whole words. For example, if you search for **mary** it will find **Maryanne**. You can change this behavior by checking the appropriate boxes in the dialog.

Match case causes SmartDraw to find matches only when the case of the characters in the drawing also matches the target.

Match whole word only causes SmartDraw to ignore matches when the target appears as part of another word.

Replacing Words

If you click on the **Replace** button in the Find and Replace Dialog, or select the Replace command under the Edit Menu, the dialog opens out to its expanded form.



Expanded Find and Replace Dialog

If the target string is highlighted in your drawing, pressing the **Replace** button will replace the target with the *replacement string* and then go on to find the next match. Pressing **Replace** again replaces the next match and so on.

You can replace all instances (initially in your selected range and then in the entire document) automatically by pressing the **Replace All** button.

'Find Next' Menu Command

After you close the Find and Replace dialog, your target and replacement strings (and checkbox settings) are remembered (even between sessions). You can find the next instance of the current target string at any time without showing the **Find and Replace Dialog**, by using the **Find Next** command under the Edit Menu.

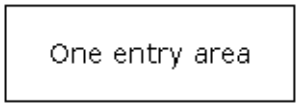
The shortcut to the Find Next command is the F3 key. Holding the Shift key down and typing F3 finds the previous match. The search order of objects is the same as their tabbing order in the drawing.

Using Tables

What are Tables?

Normally, text entered into a SmartDraw object occupies a single text entry area that fills the object. However, SmartDraw also supports ***Tables***, which contain multiple text-entry areas within a single **shape**.

The text-entry areas are separated by **Grid Lines**, so the table looks something like a spreadsheet.



Normal Shape

Entry Area 1	Entry Area 2	Entry Area 3
Entry Area 4	etc…	

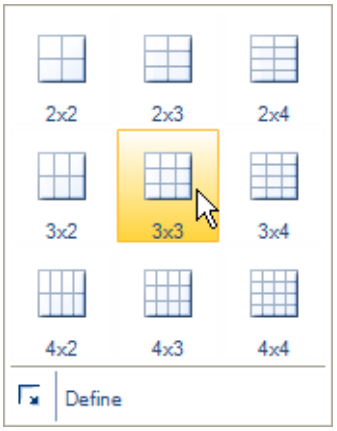
Table

Each text entry area (or *cell*) acts like a separate shape as far as text entry is concerned. Each cell can have its own text alignment and background color, and the text inside shrinks or grows independently of other cells.

Adding Tables to a Drawing

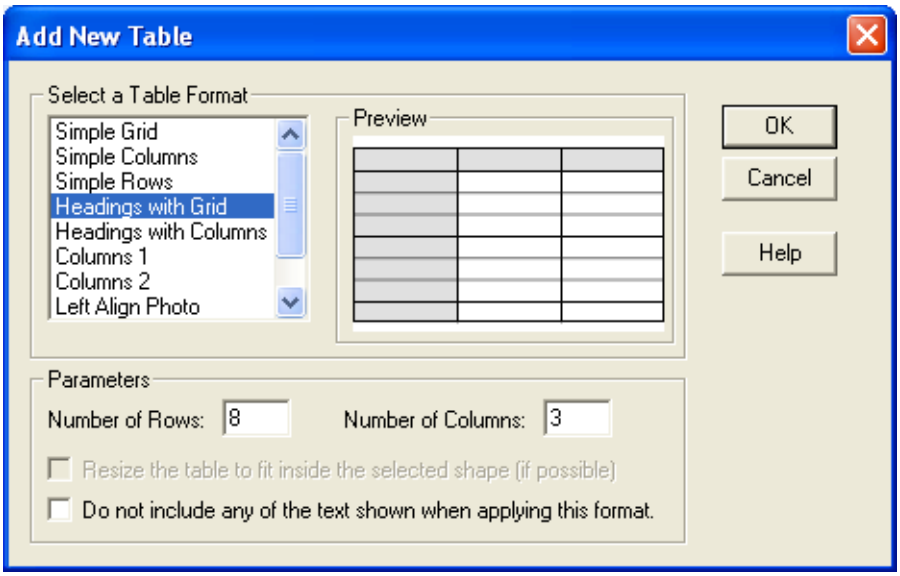
 You can add a new table to your drawing by clicking **Insert Table** on the **Table** tab.

This displays the **Table Gallery** containing nine ready-made table configurations, plus a **Define** option to define your own table.



Insert Table Menu

Clicking one of the ready-made options inserts a table of that type into your drawing. Clicking **Define** opens the **Add New Table** dialog box where you can specify your own custom table parameters.



The Add New Table Dialog

The **Add New Table Dialog** shows a list of pre-defined table formats. Clicking the name of one of them displays a preview of it on the right.

You can specify the number of rows and columns in your table by changing the numbers in the Parameters boxes.

Clicking OK adds a new table of the specified format to your drawing.

Converting a Shape to a Table

Some existing shapes can be converted into tables by the Convert to Table command on the Table tab.

This command only becomes active when a convertible shape is selected in the drawing.

This command opens the Convert Shape to Table dialog box, where you can specify the properties of the table.

At the left you see a list of pre-defined table formats. Clicking name of one of them displays a preview on the right.

You can specify the number of rows and columns in your table by changing the numbers in the Parameters boxes. Pressing OK converts the shape to the table.

Any text already inside the shape is placed in the first cell of the table.

Non-rectangular shapes may also contain tables:

Different shapes containing the same 2x2 table

Convert to Table works with any of the standard shapes available from the Shape button on the Home tab, some shapes in the libraries, and with any custom shapes created with The Polygon Tool and The Freehand Drawing Tool. Other shapes and symbols cannot be converted to tables.

See also Converting a Table to Text

Converting a Table to Text

You can change a table into a normal **shape** that has a single text-entry area using the **Convert to Text** command on the **Table** tab.

Any text contained in the table cells is joined together as one text block inside the new shape.

See also Converting a Shape to a Table

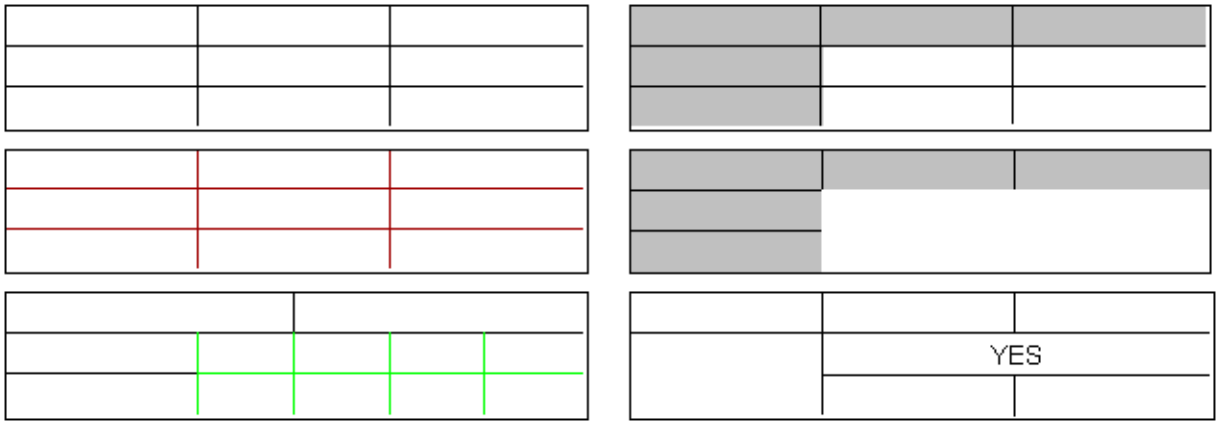
Table Rows, Columns and Cells

Tables are composed of rows and columns of **cells**.

Typically the cells in each row or column are lined up to form a perfectly regular grid, but this need not be the case. Cells can be joined and split to create nearly any kind of table structure you can imagine.

Each cell is an independent rectangular area that may have its own text, background color, and other attributes.

The dividers between the cells, called **Grid lines,** are like the borders of shapes. They may have their own thickness, color, and pattern. Grid lines may also be hidden, so they are invisible, even though they still exist to separate the cells. Some examples of table formats are shown below.



Different Table Formats

Note that columns may differ in width, and rows may differ in height. Cells may span many rows or columns. These irregular formats are created by joining and splitting table cells, or by moving small segments of the Grid lines.

See Also Joining and Splitting Table Cells

See also Moving Table Cell Dividers (Gridlines)

Formatting Tables

You can change the appearance and cell arrangements of an **existing** table on your page by choosing **Format Table** from the **Table** tab.

This opens the **Format Table** dialog box, which functions just like the Convert Shape to Table Dialog Box.

Adding Table Formats of Your Own

When you use the Format Table command to modify an existing table, the new, resulting format is added to the Table list and shown in the dialog as *[Current Settings]*.

Adding Text to Tables

By default, table cells are opened for text editing with just one click of the mouse. You can change this for a selected table by selecting **Text Entry** in the **Shape Properties** group of the **Design** tab.

If you created your table by converting an existing shape, then, by default, double-clicking is required for text entry. This can be changed to a single click using the **Text Entry** command in the **Shape Properties** group of the **Design** tab.

Text entry in a table cell behaves exactly the same way as text entry in a standard rectangular shape.

Preventing Changes to Text in Table Cells

Sometimes you may want to prevent text in a cell from being changed (or to prevent text being entered into a cell at all). This is common in forms, where you may want to lock a text label, while leaving the adjacent cell open for the user to type in.

You can prevent text editing on a cell-by-cell basis using the **Text Editing** command in the **Table** tab. The setting will be applied to any highlighted cells. Using the command toggles the ability to edit text on and off for the selected cells.

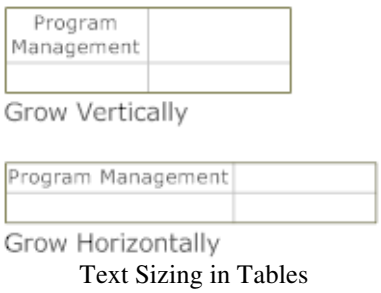
Text Resizing and Tables

If you enter a large amount of text, the cell will be forced to grow. To maintain the row and column arrangements of the table, the cell's entire row or column will also grow.

All the cells in a table follow the text resizing rules of the overall shape that contains the table. Those properties are controlled by choosing **Text Entry** on the **Design** tab while the shape is selected (you do that by clicking on its border at the edge of the table.)

By default, shapes containing tables are set to grow **vertically** as text is added. This means that text wraps within a cell, and rows get taller as text is added.

Shapes containing tables can be set, using their Text Entry Properties, to grow horizontally or proportionately as text is added. Horizontal growth means that columns (and tables) get wider as text is entered.



Text Sizing in Tables

Moving Around in the Table

When you are entering text into a cell, typing the **Tab key** moves the text insertion point to the next cell to the right. If the cell is at the end of a row, the insertion points wrap around to the first cell on the row below. **Shift-Tab** does the reverse.

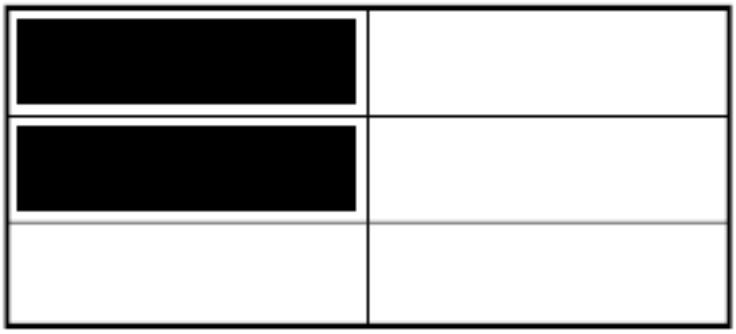
The **Up** and **Down** arrow keys also move the insertion point up and down rows within a column.

The **Right** and **Left** arrow keys move the insertion point left and right within the text of the current cell, but to the left and right cell respectively if the cell contains no text.

Note that cells with the **No Text Editing** attribute (under the More menu of the Table tab) are skipped when moving the insertion point with the tab key. This is particularly useful in forms, where you can use this to lock the cells containing fixed information, such as labels or prompts, so users automatically skip those cells when tabbing through the form.

Selecting Table Cells

Clicking and dragging the mouse within a table, when the **text insertion cursor** is active, selects a range of cells, highlighting their centers with black, just as in Excel® and other spreadsheets. (The insertion cursor is the typical text-insertion cursor that looks like the letter I.)



Selected table cells

If the table is configured for single-click text entry, the text insertion cursor appears automatically when your mouse hovers over the table cells. If it is set for double-click text entry, you must click twice on a cell to get the text insertion cursor.

➡ Rows and columns can also be selected by clicking at the leftmost or topmost edge of the table. When a click would select a row or column, the cursor is displayed as a wide arrow (shown at left).


Selecting the overall shape that contains the table (by clicking on its border) selects all the cells and grid lines in the table. The cursor appears as the normal selection tool (shown at left) when a click would result in the selection of the entire shape, rather than specific cells.


Clicking anywhere in the table with the **Multiple Selection** tool always selects the shape containing the table, including all cells and grid lines within it.

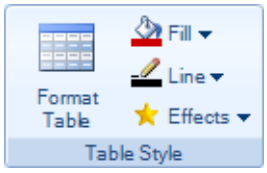
Holding the **Ctrl key** down while clicking on a cell allows you to select several individual cells one at a time. Ctrl-clicking on a selected cell de-selects it.

Holding the **Shift key** down while clicking on a cell extends the selection rectangle from the *Anchor* cell to the clicked cell. The anchor cell is the one that was first selected. This is the typical behavior of Shift-click found in many programs you are used to.

Once a cell is selected, the selection can be moved using the arrow keys. Holding the **Shift key** down while pressing an arrow key extends the selection in that direction, just like shift-clicking does. Tabbing also moves the cell selection.

Changing the Appearance of Table Cells

When a cell is selected (either by clicking in it to open it for text editing, or by highlighting it by dragging the mouse), you can change its appearance with the commands on the **Table Style** group on the **Table** tab.



Choosing **Fill** opens a menu identical to the Fill menu on the Home tab, which is described in Changing the Appearance of Shapes. The selected color or texture is applied to the selected table cells.

Choosing **Line** opens a menu identical to the Line menu in the Shape Styles group of the Home tab, which is described in Changing the Appearance of Lines. The selected color or style is applied to the grid lines around any **selected** cells in the table, or to all grid lines if the entire table is selected. (It does not change the table border. To do that, you would click on the border to select the entire table shape, then use the Line command on the Design tab.).

Choosing **Effects** opens a menu identical to the Effects menu on the Home tab, which is described in Design Effects. The selected effect will be applied to the selected cells.

Changing the Appearance of Text

The commands in the **Home** tab can be applied to any selected cells in a table, or to all the cells if the table shape itself is selected.

Selecting Table Grid Lines

You can select individual Grid Lines, or parts of a Grid Line, in your table to change their properties.

 When a mouse click would result in the selection of a Grid Line, the cursor becomes two parallel lines with arrows indicating the directions in which the Grid Line can be dragged.

Clicking on a Grid Line selects it. Selected Grid Lines are shown as green dotted lines. Once a Grid Line has been selected, you can extend the selection range by shift- clicking on lines parallel to it. Ctrl-clicking adds just the line clicked-on to the selection range.

You can change the attributes of the selected Grid Lines with the commands under the **Line** button on the **Table** tab.

Partially Selecting Row and Column Grid Lines

Normally, when you click on a table Grid Line, the entire Grid Line for that row or column is selected. If you hold the **Alt key** down while clicking, however, only the segment of the Grid Line touching that cell is selected. **Alt** clicking on additional Grid Line segments adds them to the selection. Holding down both the **Alt** and **Ctrl** keys toggles the Selection State of a Grid Line segment on or off.

This feature lets you change the properties of separate parts of a row or column Grid Line, and more importantly, allows parts of them to be moved independently.

See also: Moving Table Grid Lines

Moving Table Grid Lines

In tables, clicking on a Grid Line not only selects it, but also allows you to move it. You can increase or decrease the width of columns and the heights of rows by dragging the Grid Lines with the mouse.

When you move whole column Grid Lines, only the width of the column to the **left** of the Grid Line is affected. The columns to the right remain the same size. The table grows wider or narrower to accommodate the change in width of that column.

The same principle applies to whole row Grid Lines, where the space **above** the row is affected by moving the Grid Line.

Using the **Alt key** to select a segment of a column Grid Line allows the small selected segment to be moved, changing the width of the immediately adjoining cells. This is one way to create tables with cell arrangements that are more complicated than regular rows and columns.

Alt-Drag just the top row column Grid Line

When column Grid Lines are moved while holding down the **Alt key**, the cell to one side of the Grid Line becomes narrower as the one on the other side becomes wider. The width of the overall table remains unaffected, unless forced to grow to maintain a minimum width for a column.

Changing the Rightmost Column and Bottommost Row

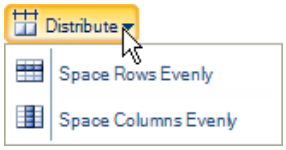
The far right and bottom edges of the table border behave like Grid Lines and can be dragged with the mouse. The Grid Line cursor appears just inside these edges when you place the mouse over them (unlike interior Grid Lines, where it appears directly on top of the Grid Line). Dragging on this "phantom" Grid Line changes the width of the rightmost column, or height of the bottom row.

Grid Snaps and Table Grid Lines

If grid-snaps are turned on (under Grid on the Page tab), the invisible page Grid affects the position of cell Grid Lines. When the snaps are active, row heights snap to whole line heights, as determined by the height of the first line in the table, and column Grid Lines snap to the lines of the invisible grid. This makes it easy to re-align column Grid Lines that have been separated by dividing cells or by dragging partial Grid Lines.

See also: Selecting Table Cell Dividers (Grid Lines)

Spacing Table Rows and Columns Evenly



The **Space Rows Evenly** and **Space Columns Evenly** commands, under **Distribute** of the **Table** tab, make all the rows or columns in the table the same height or width, while changing the size of the table as little as possible.

If any cells contain text, spacing evenly may require making all of the rows or columns the same size as the **largest** existing row or column containing text.

Resizing the Table Object

Resizing the object (rectangle, circle, etc.) that contains the table stretches or shrinks the table as a whole to fit the new dimensions of the object.

The object containing the table cannot be reduced in height to less than the **minimum required height of all the rows** (which is specified by the table's text properties). You can quickly minimize a table's height by using the mouse to shrink its bounding object vertically as far as it will go. (Click on the border of the table to select its bounding object, then use the black selection handles to resize it).

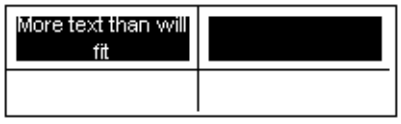
Holding the **Shift key** down while resizing the table object with a corner selection-handle will scale the entire object proportionately.

Joining and Splitting Table Cells

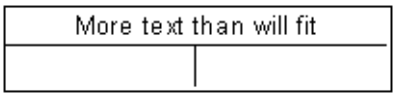
The **Join Cells** and **Split Cells** commands, on the **Table** tab, allow you to create complex table structures.

The **Join Cells** command joins the currently selected cells into one cell, combining any text in those cells into a single block of text. When cells from multiple rows are selected, cells adjacent to each other in the same row are joined first. Cells adjacent to each other in the same column are joined only if they have no selected neighbors in the same row.

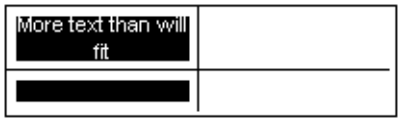
Joining cells in the same row simply removes the Grid Line(s) between them.



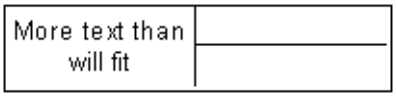
Joining Cells in a Row



Joining cells in the same column creates a single cell that spans the rows containing the selected cells. Cells that span more than one row always span a whole number of rows. It is not possible to create a cell that lies partially in a row.

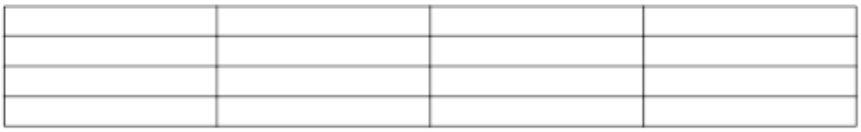


Joining Cells in a column

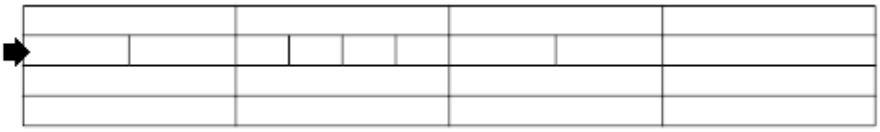


The **Split Cells** command does the reverse of **Join Cells**. If a cell spans more than one row, splitting creates a cell for each row spanned. Any text in the split cell is placed in the top, or left, cell.

If all the selected cells lie within one row, then the Split command splits each cell into two adjacent cells occupying the same space as the original cell. A vertical Grid Line is added between the two new cells.



Before Split Cells



After Split Cells

See also Selecting Table Cells

Inserting Table Rows, Columns and Cells

You can insert columns in your table using the **Insert Left** or **Insert Right** and rows using the **Insert Above** or **Insert Below** commands on the **Table** tab.

You can choose to insert a row **Above** or **Below** the selected row (the row where your cursor is, or where you have a cell highlighted.)

1	
2	
3	
4	

Before Insert Row Above

1	
2	
3	
4	

After Insert Row Above

You can insert a column to the left or right of a selected column.

1	
2	
3	
4	

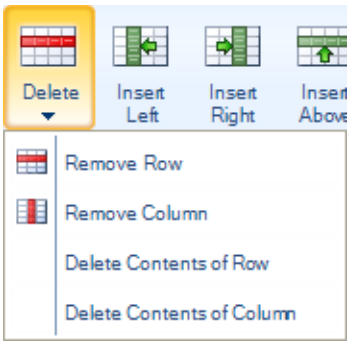
Before Insert Column on Left

	1	
	2	
	3	
	4	

After Insert Column on Left

Deleting Table Rows and Columns

The **Delete** commands on the **Table** tab give you two options:



Remove Row/Column - Remove the entire row or column of cells from the table.

Delete Contents of Row/Column - Remove only the text and other contents (such as images) from the row or column.

Deleting, Copying and Pasting Text in Tables

With a single keystroke you can delete the contents (text or graphic) of a selected table cell, without removing the cell itself. Pressing the **Backspace** or **Delete** key erases the contents in all selected cells.

The content of selected cells can be copied to the clipboard using the **Copy** or **Cut** commands on the **Home** tab. Pasting the content back into a SmartDraw table preserves its row and column arrangement along with font, alignment and other text attributes. You can even paste the table data from SmartDraw into another program, such as an Excel spreadsheet or Word table, and it will retain its tabular format.

The reverse also works**. Pasting** tabular data from another program into a SmartDraw table preserves the row and column arrangements of the data, placing each field in its appropriate cell. This allows data from spreadsheets and other programs that generate tabular data to be formatted as a table in SmartDraw.

Changing the Appearance of a Table

To change the cell color, pattern, borders, or grid lines in a table, select the desired cells, rows, or columns and then use the commands in the **Table Style** group on the **Table** tab.

To change the appearance of **text** in table cells, select the cells and then use the commands the **Home** tab.

Selecting the entire object (the overall shape) containing a table implicitly selects all the cells and Grid Lines in the table, and any changes to the properties apply to the entire table.

Note that to change the Grid Lines you use the commands on the Table menu, but to change the border of the entire selected table (its bounding object) you use the Line button on the Home tab.

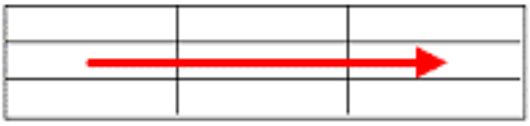
Line-Linking In Tables

Lines can be linked to table cells, a feature particularly useful in creating Gantt Charts and Timelines, which are based on tables.

If you draw a line on top of your table (using the Straight Line, Curved Line, Shape Connector, or Curved Connector tools) the end points of the line will **link** to the table cells.

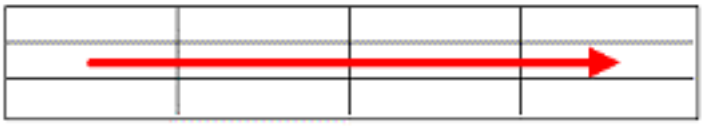
Now, if the table is moved, stretched, rotated, or reformatted, the line automatically moves with the cells it is attached to. The line itself can be bent or otherwise reconfigured, and its endpoints will remain locked in place in their table cells.

In the example below, the red line with the arrowhead was drawn on top of the table and the line was allowed to link to the table cells.



A line linked to table cells

Then the Insert Column command was used to add a new column to the left of the middle one. The line automatically stretched to stay attached to the original cells to which it was linked.



The same table after 'Insert Column'

The endpoints of the line can be linked at three different vertical positions with respect to a table row: the **top**, **center**, or **bottom** of the **row**. (Linking to the top or bottom places the line directly on top of the row Grid Line).

Within the columns, the endpoints of the line can be linked to **any position** along the horizontal axis (in other words, the horizontal linking points are continuous).

You can also link one end of a line to a table cell and the other end to a shape **outside** the table. This effectively treats the table cell as one object and the outside shape as another, and in that respect is similar to the normal practice of Linking a Line to a Shape.

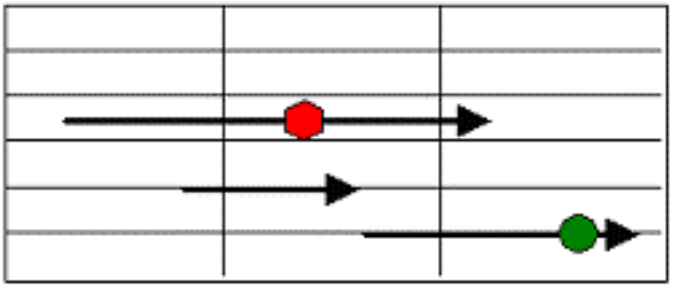
See also Shape-Linking in Tables.

Shape-Linking in Tables

As with Line-Linking In Tables , shapes can be linked to table cells. This is commonly used in Gantt Charts, Timelines, and Calendars, which are based on tables, but applies to any SmartDraw table.

You can use this property in two ways:

1. Small shapes, such as the symbols used in some types of matrix, can be linked and "stuck" to the table cells within which they lie. For example, the red and green symbols in the illustration below are shapes linked to table cells.



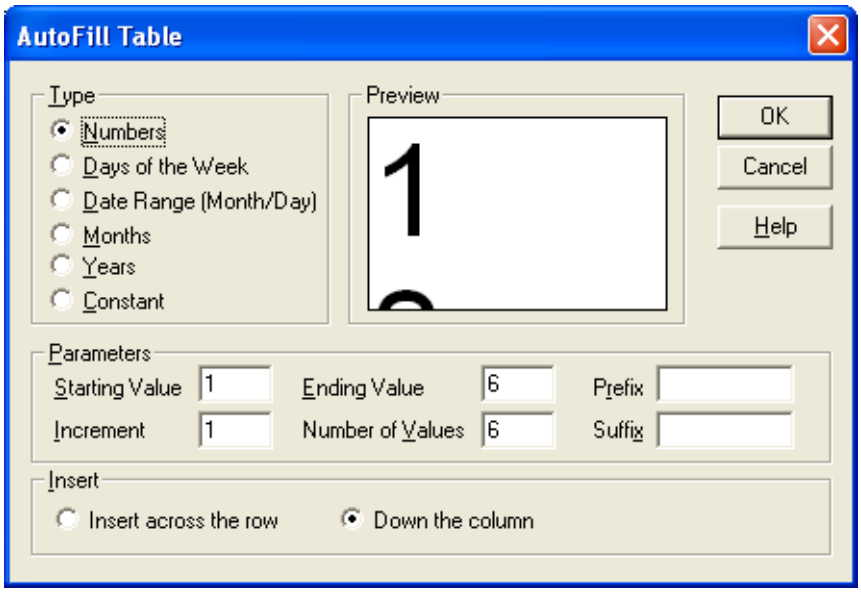
Shapes and lines linked to table cells

For a shape to be able to link to table cells, **Allow Shape to Link to Cells in Tables** must be turned on for that particular selected shape in its **Shape Properties** under the **Shape Outline** menu on the **Design** tab. Some shapes (such as Resource & Task Matrix symbols) are already set this way. For other shapes, you may need to set it manually if you want to link them to a table cell.

2. Table cells can also be indirectly linked to shapes outside the table by drawing a line between them. This effectively treats the table cell as one object and the outside shape as another, and in that respect is similar to the normal practice of Linking a Line to a Shape.

AutoFill in Tables

The row and column headers in a table are frequently a series of numbers, months or days. SmartDraw can create these series for you automatically, with the **AutoFill** command on the More menu of the **Table** tab.



The AutoFill Dialog

To use Autofill, you must have first selected a row, column, or cell in the table to indicate where you want the fill to take place.

SmartDraw will automatically enter the series of number, days, etc., across a range of rows or columns, beginning with the first selected cell.

There are six types of Autofills: Numbers, Days of the Week, Date Range (Month/Day), Months, Years, or a Constant value.

For Days of the Week and Months, the sequence can begin at any value, and it repeats until the *Number of Values* is reached. A checkbox lets you choose between full and abbreviated names for the days or months. A preview appears showing the current selections.

For years and other series of numbers, a prefix and/or suffix can be added to the Autofill values.

The radio button at the bottom of the dialog box indicates whether to insert the series across the row containing the currently selected cell or down its column.

Adding Photos (or Other Images) to Tables

You can **insert a digital photo** or other kind of bitmap image into a table cell.

A Photo inserted into a Table Cell

There are three ways to insert a photo (or other bitmap image) into a table:

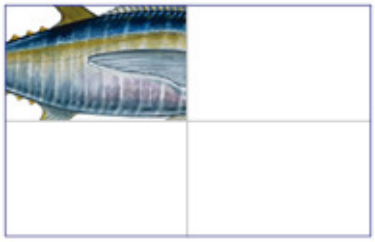
Copy the image in another program and **Paste** it into the table cell (the cell must be selected or have your cursor positioned in it so SmartDraw knows where to Paste the image.)

Select a table cell by highlighting it with the mouse, and then click **Picture** on the **Insert** tab. Browse to find the image on your computer, and it will be inserted into the table.

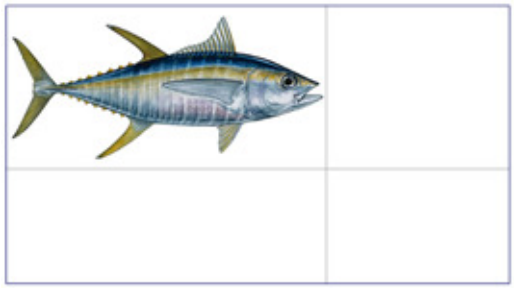
Right-click in a table cell and choose **Insert Picture** from the menu.

Pictures Cropped by Table Cells

If the picture you insert is larger than the table cell, you will see the picture cropped (cut off at the edges) by the cell.



Even it if looks cropped the whole picture is still there. If you expand the rows or columns by dragging the gridlines or joining cells, you can see the rest of the picture.



See also Moving Table Grid Lines

See also Joining and Splitting Table Cells

Arranging Objects

Arranging Objects

SmartDraw provides easy, automatic shortcuts to help you arrange the objects in your drawing.

With a few mouse clicks you can align them, make them equally sized, or make them evenly spaced. You can rotate, flip, and position them in many different ways. These commands appear on the **Design** tab.

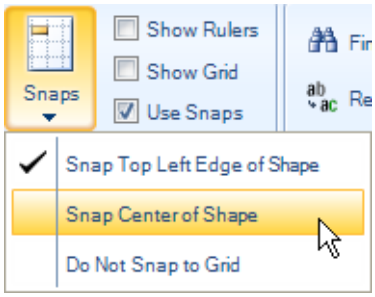
Using Grid Snaps to Align Objects

Beneath the work area lies a grid of imaginary lines spaced at the interval of the smallest increments on the rulers.

When the **Grid Snaps** function is active, the centers or edges of objects automatically align themselves with the grid as they are drawn, moved, or resized with the mouse.

This makes aligning your objects easy: You simply drag them with the mouse and let them "stick" where they want.

You control the functions of the Grid using the **Grid** commands on the **Page** tab.



The Grid Menu

Show Grid - This displays the normally invisible grid on the screen. (Note: Even though it appears on screen the grid will not print with your drawing unless you check the Print the Grid checkbox in Page Setup on the More menu of the Page tab.)

Snap to Top Left Edge of Shape - The top and left edges of your objects will align themselves with the Grid.

Snap to Center of Shape - The centers of your objects will align themselves with the Grid.

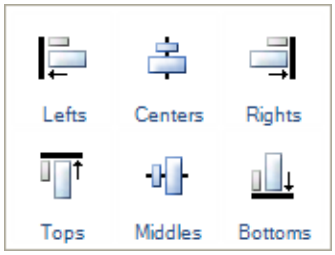
The Center setting works best when lines are used to link shapes together, as in flowcharting. The Edges setting works best when the edges of shapes must line up, as in a form or a floor plan.

Do Not Snap to Grid - The grid snap function is turned off for this particular drawing. Objects move freely, ignoring the grid.

Note: When you move or resize objects by using the **arrow keys**, they do not align with the Grid snaps. This makes it easy to make fine adjustments in position without turning the snaps off.

Aligning Objects

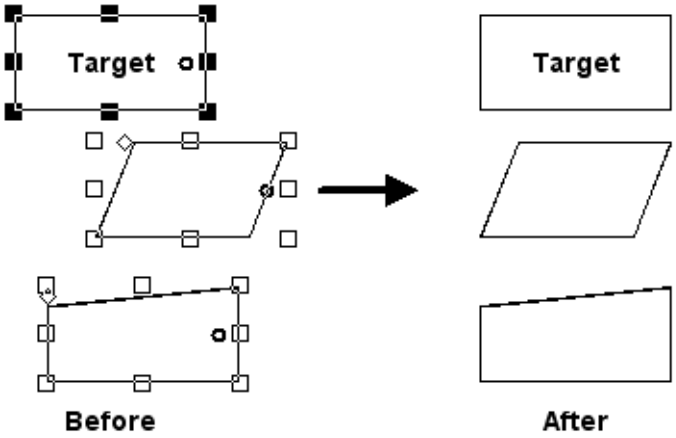
 The **Align** command, on the **Design** tab of the Main Toolbar, aligns the edges of selected objects with a ***target object***.



The Align Menu

The target object is the last one selected when you select a series of objects. You can recognize it by its solid black handles. The other selected objects have hollow handles.

The **Align Lefts** and **Rights** commands align the left or right edges of the selected objects with the left or right edge of the target object.



Align Lefts Command

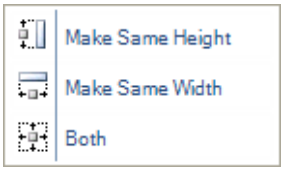
Aligning the **Tops** and **Bottoms** works similarly.

Align Centers aligns the midpoints between the left and right edges of the objects.

Align Middles aligns the midpoints between the top and bottom of the object.

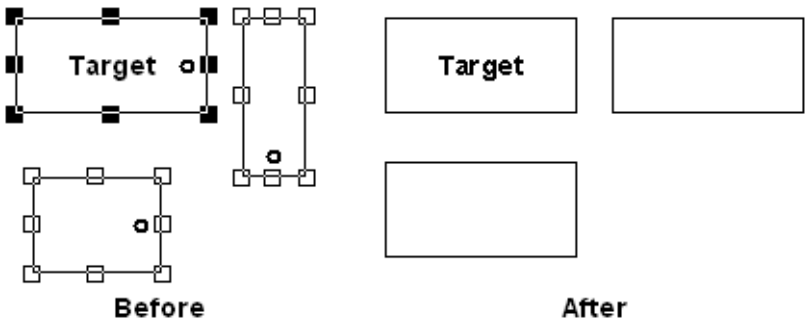
Making Objects the Same Size

You can automatically resize several objects to be identical in height, width, or both using the **Make Same Size** command on the **Design** tab.



The Make Same Size Menu

Like the Align command, **Make Same Size** defines the last object selected in a series as the *target* object. The target object has black section handles.

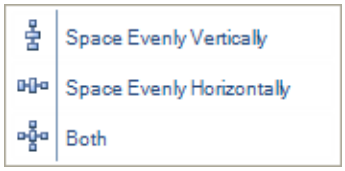


Make Same Size Command

Objects that can only shrink or grow proportionally, such as squares and circles, maintain their proportions when using this command.

Spacing Objects Evenly

The **Space Evenly** command, on the **Design** tab, arranges three or more selected objects to have equal space between them.



The Space Evenly Menu

Horizontally - Spaces objects equally in the horizontal direction only.

Vertically - Spaces objects equally in the vertical direction only.

Both - Spaces objects evenly in both directions at the same time.

Centering the Drawing in the Work Area

The **Center in Work Area** command on the **Page** tab moves all the objects in the drawing so that they are centered in the minimum number of pages needed to print them.

This command applies to **all** objects, not just selected objects.

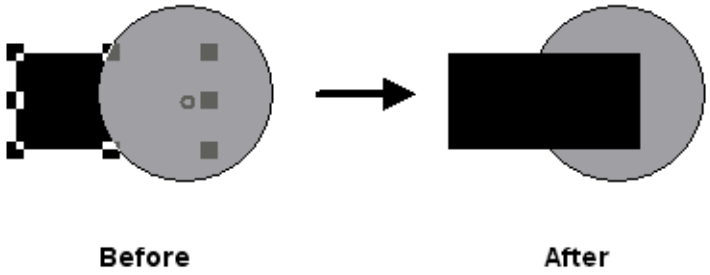
The entire drawing is also moved to the top-left of the drawing area, if needed.

If your drawing does not fit on one page, you can still print it on a single page by checking the **Print on One Page** check box in the **Print** dialog. This will shrink your entire drawing proportionally to fit on one printed page. It will not change the size of the actual drawing, only the printed output.

Changing the Front-to-Back Order

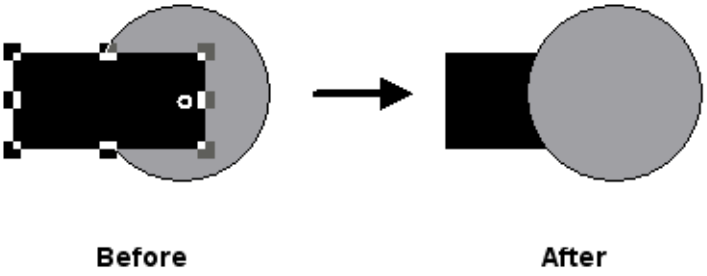
Every object on the page is either "in front of" or "behind" any other given object, depending on the order in which they were created, or the layer in which they lie.

You can change the front-to-back order of the objects in your drawing using the **Bring to Front** or **Send to Back** commands on the **Design** tab.



Bringing the rectangle to Front

Bring to Front moves any selected objects in front of the non-selected objects. **Send to Back** does the reverse.



Send to Back

If your drawing has **multiple layers**, using **Bring to Front** will move the object to the top layer. Using **Send to Back** will move it to the bottom layer.

These commands have no **visible** effect unless objects overlap one another, but they always affect operations that depend on front to back order, such as selecting objects with the Tab key.

See also Changing the Order of Objects within a Layer

The Tab Order

The order in which objects become selected as you type the **Tab key** is called the **Tab Order**.

The tab order is the order in which objects were created, unless you use the **Bring to Front** or **Send to Back** commands to change this order.

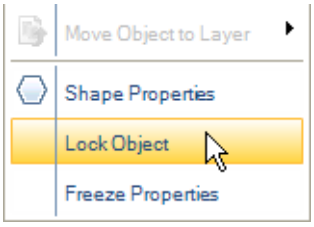
See also Changing the Front to Back Order

See also Changing the Order of Objects within a Layer

Locking Objects

With the **Lock Object** command, you can *lock* an object to avoid accidentally moving or altering it.

To lock an object, **right-click** on it and choose **Lock Object** from the right-click menu.



When selected, a locked object has **gray handles** instead of black to indicate its locked status.

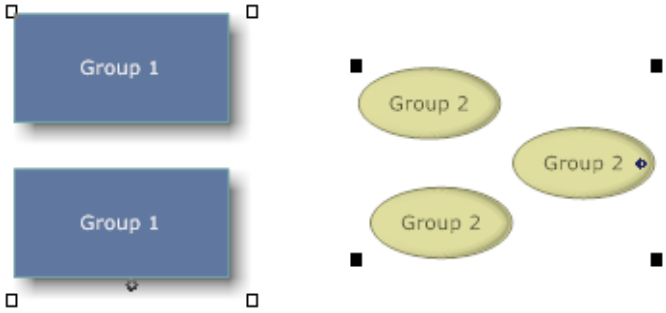
Locking objects is useful if you want to place an object behind others and don't want to accidentally move it while clicking on the objects in front of it. Locked objects cannot be opened for text editing. However, their properties (color etc.) can be changed using the menu commands.

Grouping and Ungrouping Objects


Two or more objects may be combined into a single unit using the **Group** command on the **Design** tab. The **Ungroup** command, in the same location, reverses this operation.

Group Hierarchy

Groups can have hierarchy. For example, in the illustration below, the two rectangles are first grouped together. Then the three ovals are grouped together. Finally these two groups are grouped together into one large group. If you Ungroup the large group, you will have two small groups, not five individual objects. Then you could Ungroup the small groups to separate the objects.



Grouping

To group two or more objects, select each object with the multiple selection tool and then click **Group** from the **Design** tab.

Properties of Groups

No individual objects in a group can be edited.

Clicking on any member of a group selects the group.

Objects whose position is determined by links to other objects are automatically included in groups

Moving any part of the group moves all members of the group.

Sizing the group sizes all members of the group.

Rotation rotates the group as if it were a single object.

Duplicating, copying and pasting applies to the group as a whole

Locked objects cannot be included in groups

Groups cannot be flipped

Hyperlinks are not accessible in a group; however they are maintained upon ungrouping

Ungrouping Imported Objects

You can also group and ungroup most imported objects into native SmartDraw objects. This is described in Ungrouping Imported Images in the section on using SmartDraw with other programs.

Adding Groups to Symbol Libraries

You can add a grouped object to a symbol library by dragging it onto a library window, like any other object. Groups retain their properties as library symbols, and

are drawn as a grouped object when placed in a drawing. See Adding New Symbols to a Library.

Using Layers

Using Layers

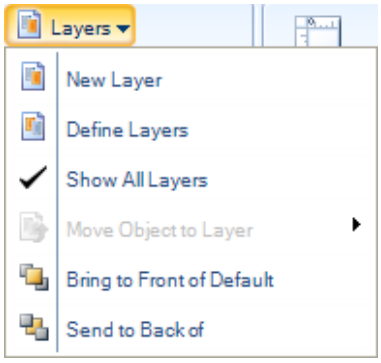
SmartDraw allows you to define more than one *Layer* in your drawing.

A layer is an invisible plane that contains its own shapes, lines, symbols and other drawing objects. You can think of it as a stack of transparent sheets of paper with objects drawn on them.

Every drawing starts with one layer, called the **Default layer**.

Each layer has a unique name, and any layer can be moved within the layer stack to lie above or below any other layer. Objects in higher layers lie visually "above" objects in the lower layers.

You create and manage additional layers using the **Layers** command menu on the **Page** tab.

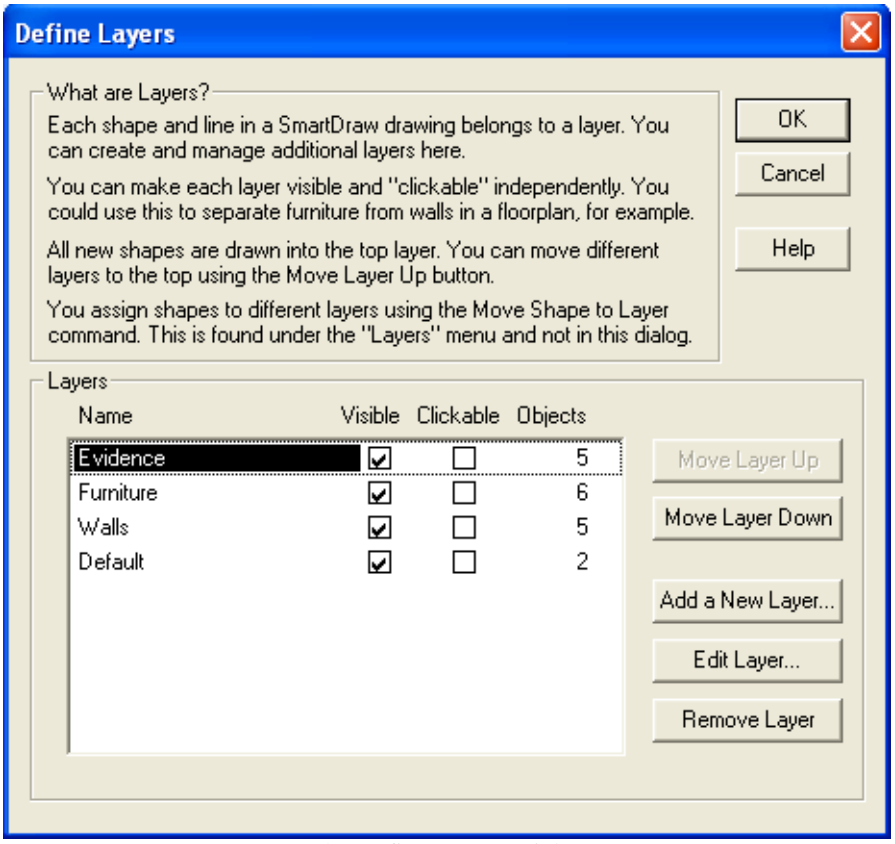


Layers are typically used to make complex diagrams like floor plans, where, for example, the walls may be in a different layer from the furniture or the wiring.

You can selectively hide or reveal layers to isolate aspects of the drawing for viewing and printing.

Defining Layers

You manage the properties of layers in your drawing using **Define Layers** dialog box, available by clicking **Define Layers**, on the **Layers** menu of the **Page** tab.



The Define Layers Dialog

Adding Layers

Each new drawing starts out with just one layer, called the *Default Layer*. You can add a new layer by clicking **Layers** on the **Page** tab, then **New Layer.** (You can also add a new layer in the Define Layers dialog box.) After you name the layer, it is added to the stack, above the existing layers.

Re-Naming Layers

You can name a layer (including the Default Layer) anything you like by clicking on the name of the Layer in the Define Layers dialog box and then pressing the **Edit Layer** button.

Layer Properties - Visible and Clickable

Layers have two properties: **Visible** and **Clickable**. The settings of these properties are shown with check boxes in the columns to the right of the layer name in the Define Layers dialog.

If the **Visible** box for a layer is unchecked, then all objects in this layer are hidden, both on-screen and when printed. If the **Clickable** box is unchecked then, even if the objects are visible, they behave as if they are part of the drawing background; they cannot be moved, deleted or changed in any way. Layers that are not visible are also not clickable.

The fourth column in the layer list shows how many objects in the drawing are currently assigned to this layer.

Note that when only one layer is present it is active and locked in the clickable and visble states. Adding a layer will unlock these options for all layers.

Moving Objects Between Layers

In a multi-layer drawing, any selected object can be assigned to any layer using the **Move Object To Layer** command on the **Layers** menu of the **Page** tab.

Moving Objects within their Own Default Layer

You can move selected objects to the **front** or **back** of their current layer using the two commands at the bottom of the **Layers** menu on the **Page** tab.

Changing the Layer Order

The layers appear in your drawing in the same order (top to bottom) that they appear in the Define Layers dialog box. The layer at the top of the list is the topmost (or front most) layer in the drawing. This means that objects assigned to this layer lie in front of (and may hide) objects in the lower layers. Similarly, objects assigned to the second layer lie in front of objects assigned to the third layer and so on.

You can adjust the position of a layer in the stack by selecting it in the list and then clicking on the **Move Layer Up** and **Move Layer Down** buttons in the dialog.

Showing All Layers

If you want to quickly make all your layers visible, you can use the **Show All Layers** command on the **Layers** menu of the **Page** tab. If a checkmark appears beside this command, all your layers are already visible.

Removing Layers

You can remove a layer from the drawing by selecting its name in the Define Layers dialog box and pressing the **Remove Layer** button. Any objects assigned to this layer are automatically re-assigned to the top layer.

See also: The Layer Tabs

The Layer Tabs

If more than one layer exists in your drawing, then **Layer Tabs** appear at the bottom of the drawing window.

Each tab represents one layer. The active layer tab is white and the inactive layer tabs are blue.

Clicking once on a tab makes that layer active. Double-clicking on a tab opens the Define Layers dialog.

Small icons on each tab indicate the layer properties. The **eye** appears if the layer is set to be visible. A red X appears over the eye if the layer is set to be invisible.

A **lock** icon appears if the layer is set to be non-clickable.

Clicking on the small **down arrow** below these icons brings up a menu that allows you to change the layer properties. Right-clicking on the Layer Tab brings up the same menu.

The active layer is always clickable and visible (even if only temporarily).

If you want to quickly make all your layers visible, you can use the **Show All Layers** command on the **Layers** menu of the **Page** tab. If a checkmark appears beside this command, all your layers are already visible.

If the number of layer tabs exceeds the space available at the bottom of the drawing area, **scroll buttons** appear at the left of the tabs, allowing you to scroll left and right through the layers.

The maximum number of layers in a drawing is 32.

The Active Layer

The layer with the currently selected Tab is the Active Layer.

The active layer is always visible and clickable (even if only temporarily). All newly created objects are normally assigned to the active layer automatically. There are only three exceptions to this rule:

Objects created with the Duplicate command remain in the layer of the object that was duplicated.

Objects Copied and Pasted within a drawing stay in the layer they were copied from.

Objects Copied and Pasted from one drawing to another remain in their respective layer only if the destination drawing has a layer with the same name as the original layer. Otherwise they are assigned to the active layer.

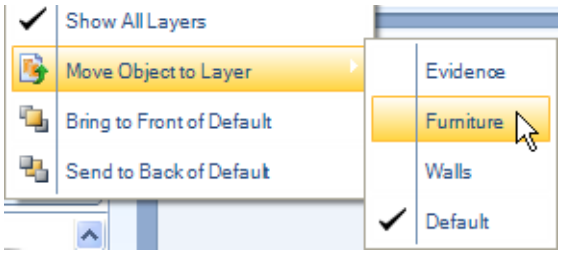
If you want to work on a particular layer, you can make it active by clicking on its Layer Tab at the bottom of the drawing window.

See also The Layer Tabs

Moving Objects Between Layers

Any selected object can be moved to another layer, or moved to the top or bottom within its own layer.

The **Move Object to Layer** command, on the **Layers** menu of the **Page** tab, will move the currently selected object to the layer that you specify on the drop-down list.



Move Object to Layer Menu

The list shows all the layers in their top-to-bottom (front-to-back) order. If all of the selected objects are currently assigned to the same layer, the name of this layer is checked.

You can also bring a selected object to the front or back of its own *current* layer, using the **Bring to Front of Layer** and **Send to Back of Layer** commands on this menu.

If you move an object to a layer that is not visible or clickable, the object itself will no longer be visible or clickable.

The **Move Object to Layer** command also appears on the right-click menu for any selected object.

Changing the Order of Objects Within a Layer

The **Bring to Front** and **Send to Back** commands on the **Arrange** group of the Main Toolbar send a selected object to the front or back of all objects in ***all layers***.

This may result in moving the object to a different layer from the one it is currently in.

To move a selected object to the front or back of its own current layer, use the **Bring to Front of Layer** and **Send to Back of Layer** commands on the **Layers** menu of the **Page** tab.

Linking Lines and Shapes

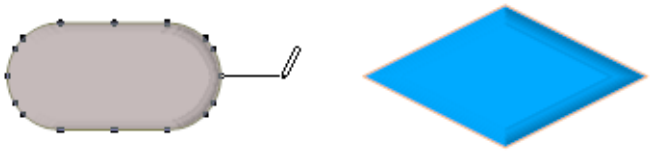
Linking a Line to a Shape

The ability to link lines to shapes lies at the core of many drawings types, including flowcharts, engineering schematics, mind maps, and many more. It allows you to connect two shapes with a line that will stretch like a rubber band to stay connected when you move one of the shapes.

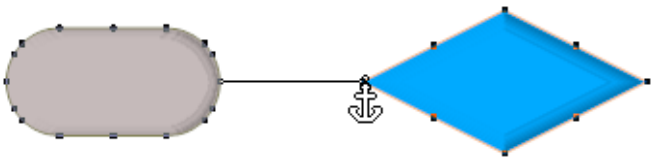
You can link lines to shapes if **Allow Lines to Link** is turned on (in **Options**, under the **SmartDraw Button**).

To connect two shapes with a line, click on the **Line Tool**  on the **Home** tab and release.

Now your cursor looks like a pencil. Touch the pencil to the edge of one shape and click down with the mouse. Drag the pencil to the edge of another shape, and release.



Starting a Line from a Shape

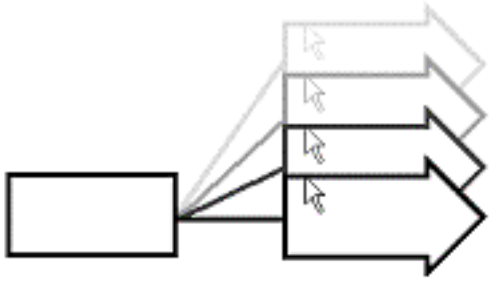


Anchoring a Line to a Shape

When the end of the line approaches the shape's border, a series of round solid circles appear on the shape, indicating the points on the border where the line may link. These are called Shape Connection Points.

 The end of the line then snaps to the closest connection point and the mouse cursor becomes an "anchor". Releasing the mouse while in this state links the line to the shape.

The line is like a rubber band that stretches or shrinks to stay connected to the shapes as they are moved

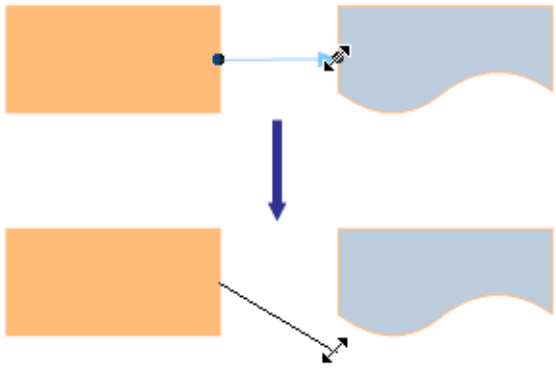


Lines stay connected when shapes are moved

See also Shape Connection Points.

Breaking a Line Link

To unlink the line, reverse the process. First, select the line by clicking on it. A round handle appears where the line attaches to the shape. Grab that round handle and drag it away from the shape to break the link.



When only one end of a line is linked to a shape you can also break the link by simply moving the line (by dragging it) away from the shape. Deleting an object linked to a line also breaks the link.

Line Linking and Flowcharts

Linking lines to shapes is essential to creating flowcharts. By connecting your shapes with linked lines you can move and rearrange the shapes in your flowchart without breaking the flow lines.

In a typical flowchart, you'll want to link the line to the **center** of the side of a shape. The flowchart drawing templates are set up so that the centers of the shapes snap to the grid (see the Grid command on the Page tab). If you link your lines to the centers of the sides, all your lines will be straight.

On the other hand, if you draw a floor plan (or any other drawing where the alignment of edges is more important than centers), then you'll want the **edges** to snap to the grid. You can specify this in the Snaps settings on the Page tab.

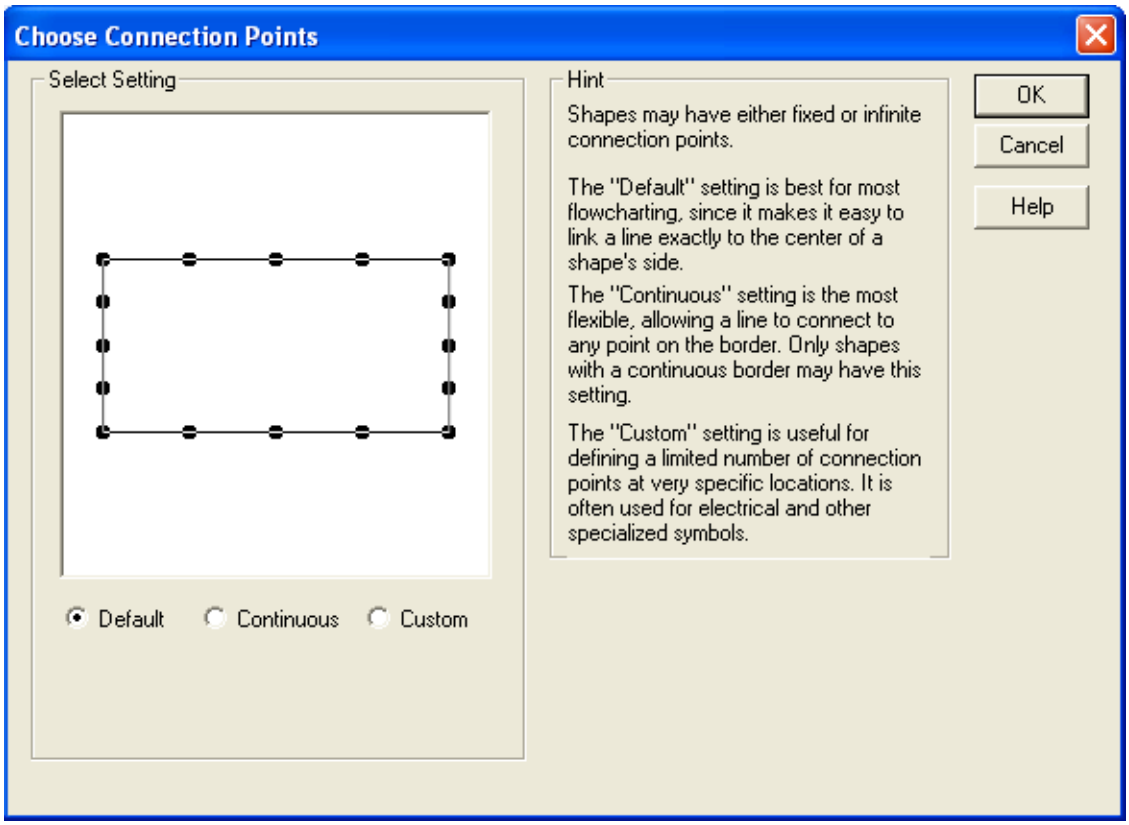
Linking Lines To Table Cells

You can link lines directly to individual cells in tables, which is useful for drawings such as Time Lines and Gantt charts. See Line-Linking In Tables .

Shape Connection Points

Shapes and symbols can have either **Fixed**, **Continuous,** or **Custom** Connection Points.

You can modify the connection points for any shape in your drawing by selecting the shape and clicking **Connection Points** on the **Design** tab.



The Connection Points Dialog

Only the standard shapes available from the Shape Tool on the **Home** tab have **Default** (fixed) connection points, which lie as follows: four at the corners of the shape, four in the center of the sides, and one between each of these points. These default points are ideal for drawing flowcharts, org charts, and similar diagrams.

Any closed shape (whether a standard toolbar shape or some other closed polygon) can be set to have **Continuous** Connection Points, allowing you to link lines or other objects to **any location** on the perimeter of your shape. In addition to flexibility, Continuous Connection Points allow you to connect a very large number of lines to the same side of a shape.

Any shape or symbol can be set to have **Custom** Connection Points, which allows you to add, remove, or reposition Connection Points at will. Most library symbols only have Custom Connection Points and cannot be set to Default or Continuous (though there are exceptions, such as the closed polygons mentioned above).

The number of **Default** or **Custom** Connection Points on any shape may not exceed 16. Continuous Connection Points are essentially infinite.

Modifying the Connection Points for a symbol on your page only modifies that **single instance** of that object. It does not modify the master copy of that shape in the symbol libraries. However, you can permanently alter the Connection Points for a

library symbol using the Edit Symbol function, accessed by right-clicking the symbol in the symbol library. You may want to make a copy of the symbol and modify that one, so that you don't lose the properties of the original.

The Shape Attachment Point

Each shape or symbol also has an **Attachment Point**, usually at its center, which determines where it will link if attached to a line, or attached to another shape's border, or to a table cell. You can move the attachment point using the Connection Points dialog, where the Attachment Point is shown as a diamond.

As with Connection Points, modifying the Attachment Point for a shape or symbol on your page only modifies that **single instance** of that object. It does not modify the master copy of that object in the symbol libraries. However, you can permanently alter the Attachment Point for a library symbol using the Edit Symbol function, accessed by right-clicking the symbol in the symbol library. You may want to make a copy of the symbol and modify that one, so you don't lose the properties of the original.

See also:

Modifying Connection Points

Linking a Line to a Shape

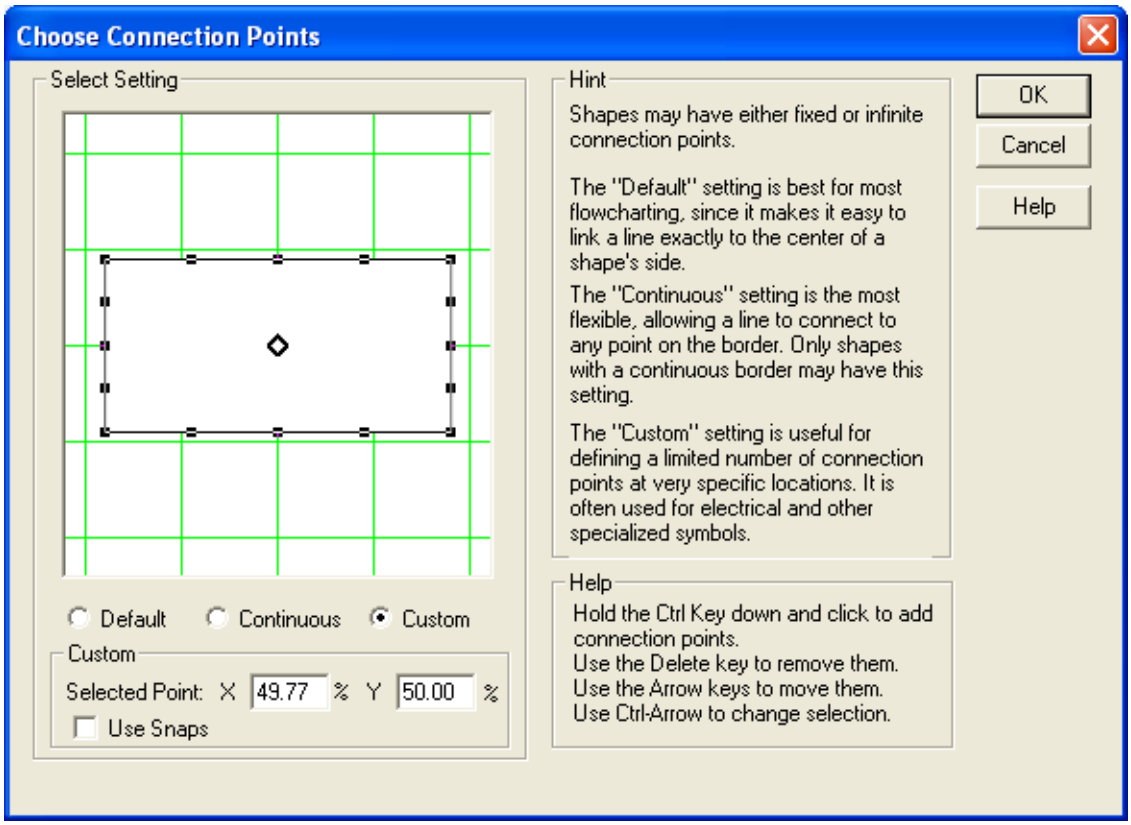
Linking Shapes to Each Other

Changing the Settings for a Symbol

Modifying Connection Points

You can modify the positions the connection points on a shape or symbol already in your drawing using **Choose Connection Points** dialog box (found by selecting the shape and clicking **Connection Points** in the **Design** tab).

Each Connection Point is shown as a small black square, and when it is selected it looks like a black circle.



The **Attachment Point** is shown as a small black diamond, and when it is selected it looks like a large black diamond.

Moving the Connection Points

You can **drag** the connection points with the mouse to a new location within the boundaries of the shape, or you can type the four **arrow keys** to move a selected point.

In the Custom mode, the preview shows a **grid** background. You can cause the connection points to snap to the grid as you move them by checking the **Use Snaps** box.

Adding and Deleting Connection Points

When a point is selected, you can delete it by typing the **backspace** or **delete** key. The Attachment point (diamond) cannot be deleted.

You can **add** a new point by holding Ctrl while you click on the shape. Each shape can have a maximum of 16 connection points.

Holding down Ctrl and using the arrow keys **moves the selection** from one point to another.

Modifying the Connections Points in the Library

Modifying the Connection Points for a shape or symbol on your page only modifies that **single instance** of that object. It does not modify the master copy of that object in the symbol libraries. However, you can permanently alter the Connections Points for a library symbol using the **Edit Symbol** function, accessed by right-clicking the symbol in the symbol library window. Automatic Settings must be unchecked to modify the points. You may want to make a copy of the symbol and modify that one, so you don't lose the properties of the original.

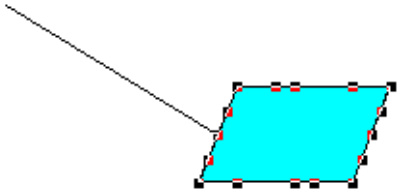
See also:

Linking a Line to a Shape

Changing the Settings for a Symbol

Linked Targets and Linked Objects

In any linking relationship (such as that between a line and a shape), one object is called the **Linked Target** and the other the **Linked Object.** Using the example of a line linked to a shape (as in a flowchart), the object that shows connection points (the shape) is the Linked Target, and the object linked to it (in this case the line) is the Linked Object.



A Linked Target (shape) and Linked Object (line)

The Linked Target usually controls the position of the linked object. If the linked target is moved, the linked object either moves or re-sizes itself to maintain the link.

Lines can have one or two targets (one at each end). A line with one linked target (i.e., only linked to something at one end), will move when the target object is moved. With two targets (i.e., both ends of the line are linked to objects), the line will stretch or shrink to maintain the connection when one target object is moved.

When a line that is linked to *one* target is moved, the link is broken. When a line that is linked to *two* target objects is moved, all three are moved as a group.

Turning Linking On and Off

You can turn the linking behavior of lines and shapes on and off. This is useful when you want to draw a detailed picture, and you don't want objects that are close to others "grabbing" them and linking to them.

The **Allow Lines to Link** command, found under **Options** under the **SmartDraw Button**, turns on or off the ability of lines to link to other objects. The templates for drawing flowcharts and similar drawings have this setting turned on by default.

Similarly, the **Allow Shapes to Link** command turns on or off the ability of shapes to link to other shapes. Shape-linking is used more seldom than line-linking, so in most drawing types this is turned off by default.

See also Linking a Line to a Shape

See also Linking Shapes to Lines

Linking Shapes to Lines

Allowing shapes to link to lines should not be confused with allowing lines to link to shapes. It is essentially the reverse process. When **Allow Shapes to Link to Lines** (found in **Options** under the **SmartDraw Button**) is turned on, the line becomes the Linked Target and the Shape (or a library symbol) becomes the Linked Object.

Shapes link to lines via one attachment point, usually in the center of the shape. You link a shape to a line by dragging it over the line so that its attachment point draws near the line. As the shape's attachment point comes into contact with the line, the cursor changes to the anchor shape and the attachment point becomes highlighted as a black dot.

Releasing the mouse leaves the shape linked to the line. If the line is moved the shape follows.

The linked shape can be **dragged along the line** like a bead sliding on a string.

When the Line Shows Through the Linked Shape

Sometimes when a shape links to a line, the line appears to show through the shape. This usually means the line lies in front of the shape. Selecting the shape and using the **Bring To Front** command on the **Design** tab reverses their order.

Line in Front of Shape

Shape in Front of Line

Orienting Shapes and Text on a Line

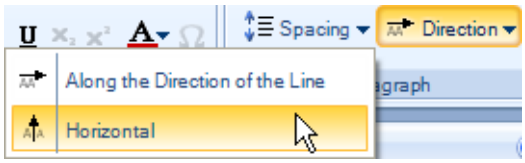
The **orientation** of a Shape (or text) linked to a line is controlled by the **Direction** command on the **Home** tab.

To use this setting:

You must have a piece of text attached to a line, or a shape linked to the line.

You must select the Line (not the text or shape) by clicking on it.

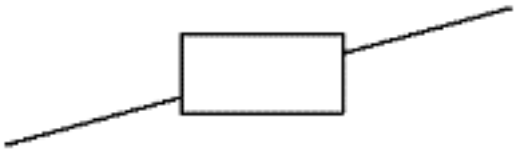
Now use the **Direction** command:



When the line is set to **Align along the Direction of the Line,** a shape rotates to follow the direction of the line.

Align along the direction of the line

When the alignment is set to **Horizontal,** the shape or text object maintains its own angle of rotation and can be rotated independently of the direction of the line.



Horizontal

See also Attaching Text to Lines.

Linking Shapes to Each Other

When **Allow Shapes to Link** is turned on (in **Options** under the **SmartDraw Button**) one shape can be linked to another shape.

When shapes link to each other, any of the **Shape Connection Points** on the linked shape can snap to any of the connection points on the target shape. Shapes can only link to one target shape at a time.

This feature is useful if you want to attach a background text object to a shape (without putting the text literally *inside* the shape) so that it follows the shape around when the shape is moved or re-sized.

See also Linking Shapes to Shape Borders.

See also Linked Targets and Linked Objects

Linking Shapes to Shape Borders

Since a **shape border** is essentially like a line, one shape can be linked to another shape's border by its Attachment Point in the same way that shapes can link to lines.

For a shape to link to another shape's border, the following conditions must be true:

The shape whose border will be linked to must be a **polygon** shape created with the **Polygon Line** tool on the **Home** tab.

Allow Shapes to Link to Lines must be turned on (found under **Options** under the **SmartDraw Button**.)

The shape which will be linked to the border of the other must have **Allow Shape to Link to Borders** turned on in**The Shape Properties Dialog** box (found on the **Shape Outline** command on the **Design** tab.)

See also Linking Shapes to Lines.

Linking Lines to Each Other

Lines can be linked to other lines by dragging the endpoint of one line to any point on another line and letting it attach, similarly to the way lines link to shapes.

For lines to link, **Allow Lines to Link** must be turned on (found under **Options** under the **SmartDraw Button**).

This is useful for creating branched networks of lines that remain attached when their target objects (whether shapes or lines) change size or move.

If two lines are connected to the same Connection Point on the border of a shape, the second line will preferentially connect to the shape and not the other line.

Joining Lines to Each Other

In addition to the ability to be Linked (which makes one line stick to another where they touch), lines can be **Joined** to become a single new line, or to create a closed Shape.

When lines are joined in this way, they behave like those drawn with the Polygon Line tool.

For lines to be able to join, the **Allow Lines to Join** command must be turned on in **SmartDraw Options** on the More menu under the **Document** group.

With this command turned on, two lines can be joined by dragging the endpoint of one to the endpoint of another, or by starting to draw a new line with the cursor positioned over the endpoint of another.

 When two lines are ready to join, a **circle** appears around the tip of the line drawing (pen) cursor.

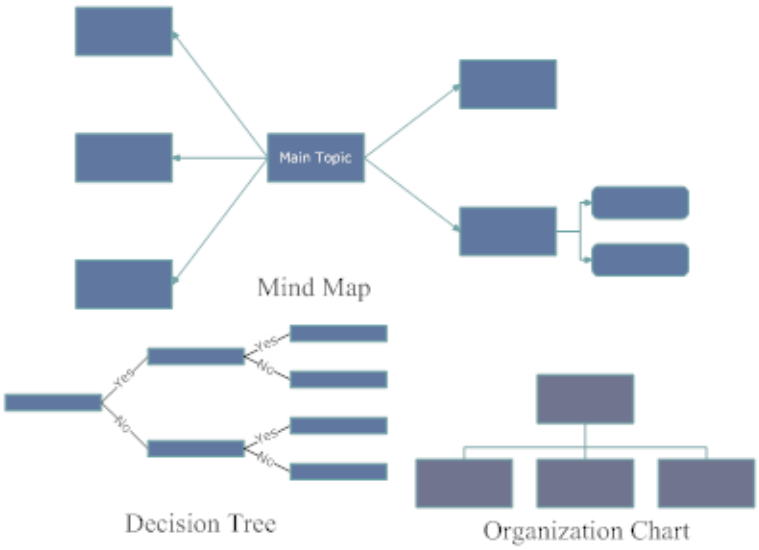
If lines are joined into a continuous closed loop, they fuse into a **Shape**, which can be filled with color and which has all the properties of other SmartDraw native shapes.

See also: Drawing Freeform Lines and Shapes.

Automatic Connector Lines

Using Automatic Connector Lines

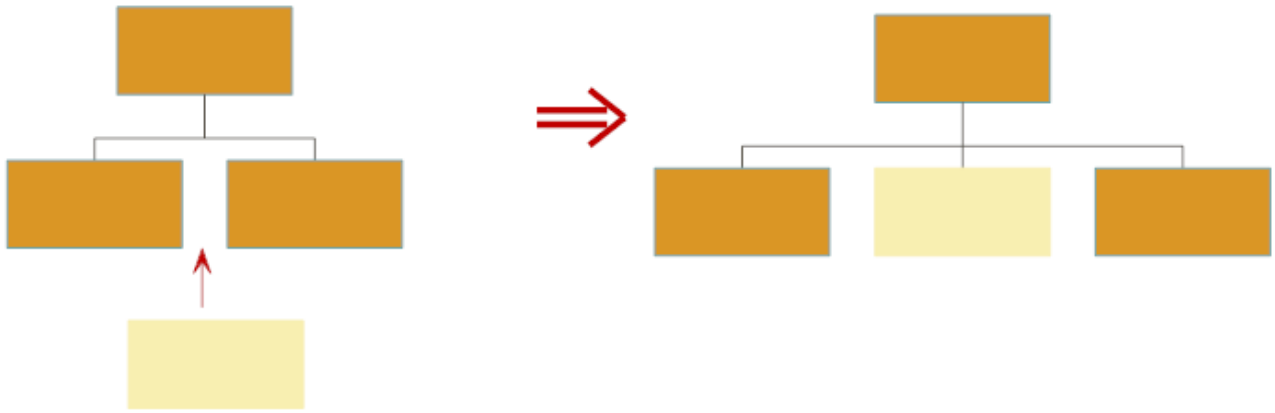
One of the most powerful features of SmartDraw is the use of **Automatic Connector Lines** to create regular arrangements of shapes. Automatic connectors are a type of **Line**, so the Line commands apply to them. They are primarily used in **Org Charts**, but also show up in family trees, fishbone diagrams, mind maps, some network diagrams, and even occasionally flowcharts.



Using Automatic Connectors

Automatic Connectors are special "intelligent" lines that can attach themselves to shapes, symbols, and even other lines. A connector is **programmed** to arrange the objects linked to it in a particular pattern.

As new objects are linked to the connector, the other objects already linked to it adjust to accommodate the new one and maintain the pre-programmed arrangement. In the example below, a new shape is added to an organizational chart connector.



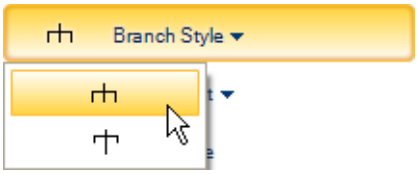
Adding a new shape to a Connector

The new shape (tan) is dropped between the two existing shapes, and the connector automatically adjusts to insert it between them.

When drawing Org Charts, the **Org Chart SmartPanel** contains buttons for adding employees, assistants, and co-managers that will automatically format the Org Chart in the proper manner.

Changing an Automatic Connector's Shape

You can change the **shape** (configuration) of an existing Automatic Connector using the **Branch Style Button**, which is usually present in the **SmartPanel** for the template types with Automatic Connectors.



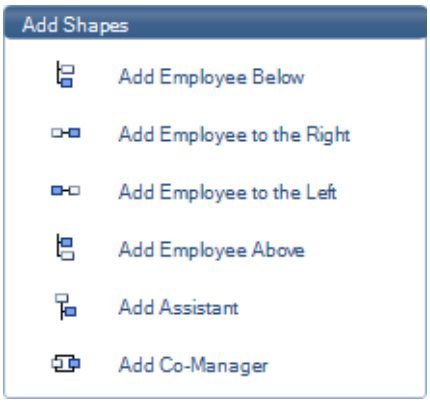
Change Connector Shape

Also typically located on the **SmartPanels** of these types of diagram are controls for changing the **Chart Direction** and **Box Format.**

The **Flip** command, found on the **Design** tab, can also be used to create additional variations of these shapes. However, if any objects are already attached to the connector, you may need to remove them before flipping it, and then reattach them.

Adding Objects to an Automatic Connector

When you draw Org Charts and other similar diagrams, the **SmartPanel** contains buttons for adding boxes that does this automatically for you. The directions on the buttons indicate the location of the new box with respect to the selected box.

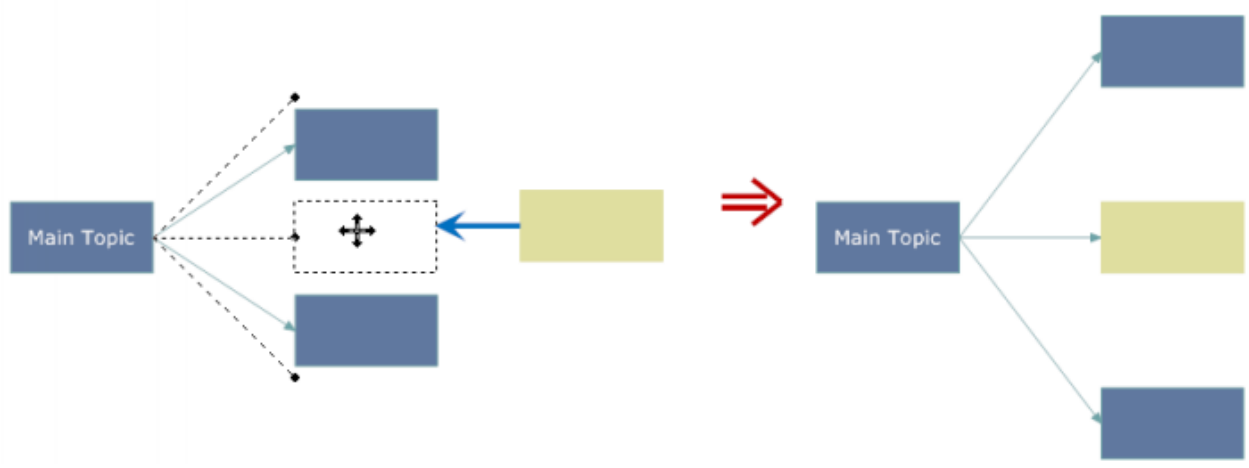


A Group from the Org Chart SmartPanel

But you can also add boxes or object to an Automatic Connector manually, as described below. This is useful when you need to move a box or branch from one connector to another.

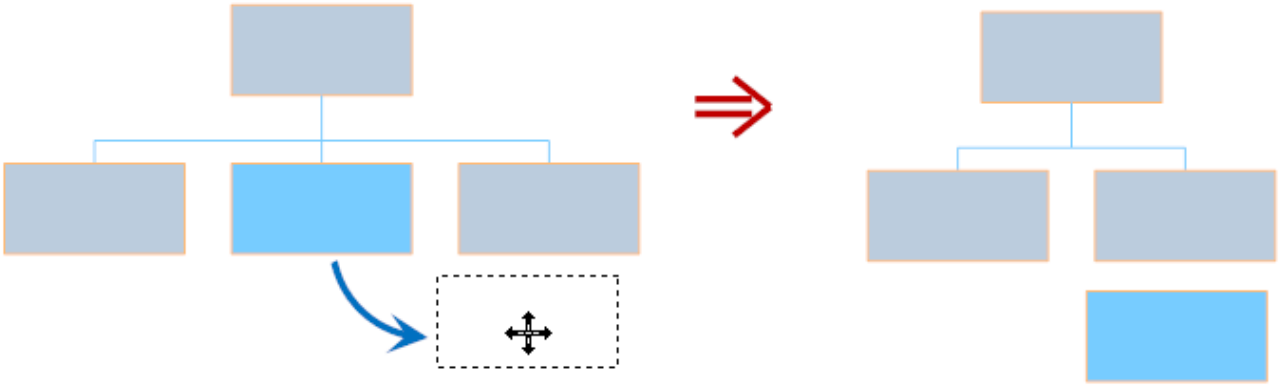
When you move an object or a line close to an automatic connector, "ghost" connection points appear and a rectangular outline near the connector indicates the position where the object will be linked if you release it.

Releasing the mouse links the object to the automatic connector.



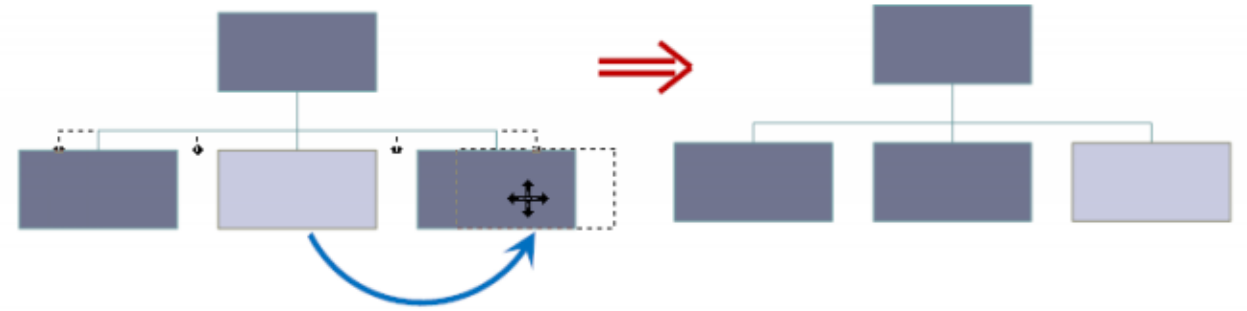
Linking to an Automatic Connector

Dragging an object away from the automatic connector disconnects it, and then the objects still linked to the connector move together to fill the space.



Breaking a Link to an Automatic Connector

Dragging a shape from one connection point to another changes the order of the shapes.



Re-arranging a Link to an Automatic Connector

Adjusting Automatic Connector Spacing

An Automatic Connector Line normally spaces the boxes attached to it evenly. By clicking on the line to select it, you get growth handles that allow you to adjust the dimensions of the connector.

Clicking and dragging on the round, black handle at the top of a branch removes the entire branch from the box it is attached to. In the figure below, this would mean that the entire branch and its three boxes would be detached from the upper box.

Clicking and dragging the diamond on a vertical line will slide that line left and right on the branch below it. In the figure below, this would mean that the upper box and its vertical branch would slide on the horizontal line.

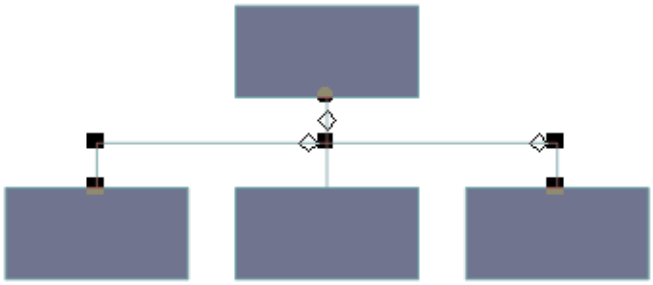
Clicking and dragging the black, square handle connecting the vertical line to the horizontal line will grow the vertical line.

The diamond handles on the horizontal line will change the spacing only of the two boxes it is between, causing irregular spacing in the boxes.

The square, black handles on the corners of the branch will change the width of the horizontal line while maintaining regular spacing between the boxes.

The square, black handles at the junction of a box and a line will lengthen the line.

These relationships are shown in the figure below.



Grow Handles

Changing an Automatic Connector's Appearance

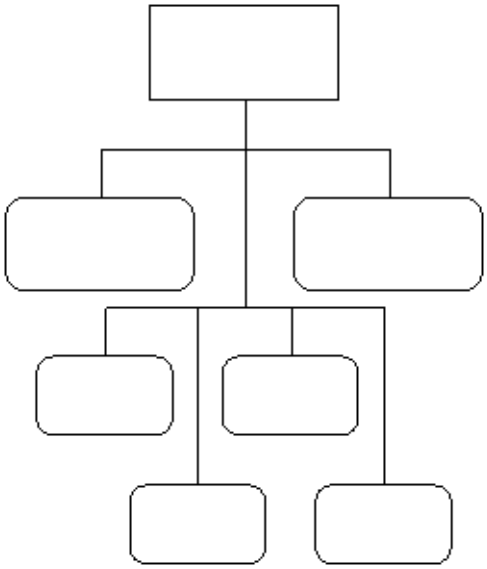
An automatic connector has the same attributes as a line, so the **Line** button on the **Home** tab can be used to set its thickness, color, and style.

Automatic connectors can also have arrowheads of any type.

Automatic Connectors cannot have text directly attached to them (see Attaching Text to Lines) and cannot be rotated.

Linking Automatic Connectors to Each Other

Automatic connectors can be linked to each other to create elaborate hierarchies.



Organization Chart with Two Connectors

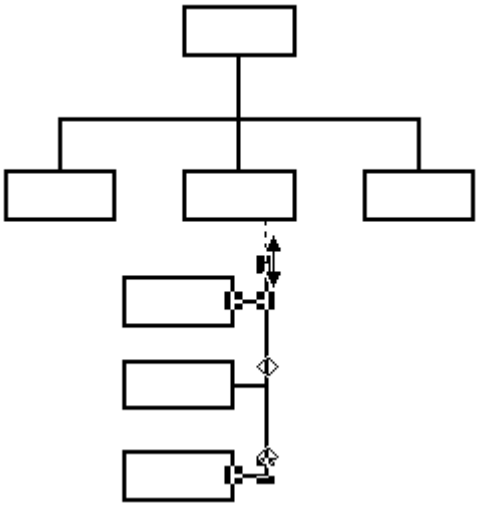
In the illustration above, the connector that holds the four smaller shapes (at the bottom) is linked to the higher connector that holds the two larger shapes. This connector is in turn linked to the top (manager) shape.

To attach a connector to another:

Place a second automatic connector object (from the library) on the page beneath the first one.

Remove the top (manager) box from the lower connector, if it has one.

Drag the end of the lower connector's vertical line up until it attaches to the top connector line, or to a particular box on the top connector, above it.



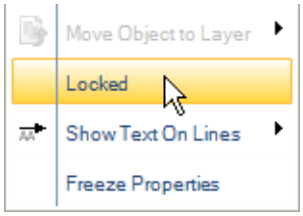
Linking the lower connector line to the box above it

Locking an Automatic Connector

Sometimes an automatic connector will try to grab an object (or another connector) that you are trying to place independently on the page. To prevent this, you can temporarily lock the grabbing connector, allowing you to move or position your other objects freely.

To lock a connector, **right-click** on it, then choose **Lock Object** from the right-click menu. This will turn the connector's handles from black to gray, and you will no longer be able to resize or otherwise adjust it until you unlock it again.

While locked, the connector will not try to grab objects placed near it.



A locked connector has gray handles.

Importing Org Charts from Data Files

SmartDraw can automatically draw (or update) an org chart from an imported data file. This function is available only from the **Import Chart from Data** command on the More menu of the **Org Chart SmartPanel**.

You can import a file having either of two structures:

A tab-indented text file

An ID-formatted text file (where hierarchy is indicated by supervisor names or ID numbers). This is the format used by Org Plus®.

In either of these file types, the fields can be separated by any one of a number of delimiters, including tabs, commas, colons, dashes and many others available from the **Field Separator** drop-down list in the Import Org Chart dialog. A line break (CR\\LF) indicates the end of each record.

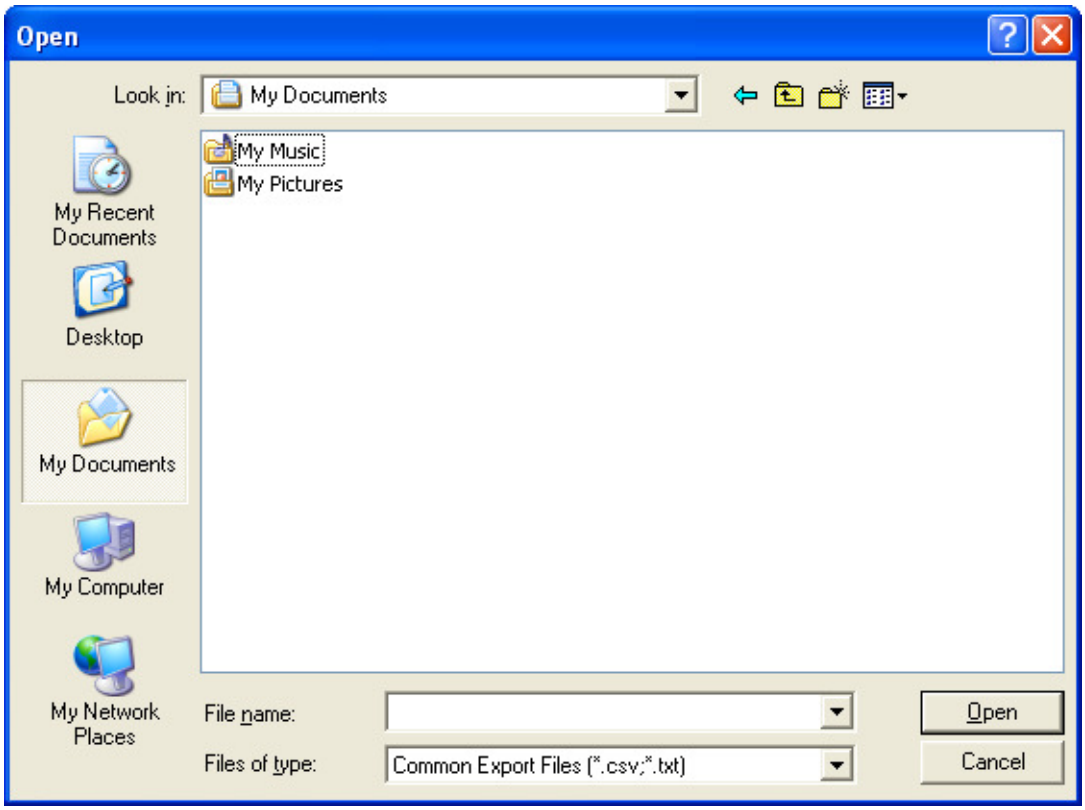
The text file can have any extension, but SmartDraw will automatically browse for *.TXT and *.CSV (the default Excel comma-separated format).

Automatic Chart Updating

SmartDraw can automatically **update** your existing org chart by re-importing an updated data file. All formatting in the existing chart (color scheme, style, font, etc.) is preserved during an update.

How to Import an Org Chart from a Data File

When you click the **Import Chart from Data** command on the Advanced Options menu of the **Org Chart SmartPanel**, the Org Chart Import dialog appears.



The Org Chart Import Dialog

Field Parsing Options

Get Field Labels from First Row: If your chart has labels such as "Name" "Title" etc., in the first row, SmartDraw can use them to identify the fields in the chart. If it does not have field titles, uncheck this option.

Show Labels in Org Chart – Allows you to display or hide the field labels (if any) in the finished chart.

Field Separator – Allows you to specify the character that separates the fields in your data file, such as "comma, " "tab", etc. (If the list of records to be imported, at the bottom of this dialog, looks jumbled, be sure to check that the right separator is chosen here.) You can place quotes around field data if you need to use your delimiter character (such as a comma) in that field.

Record Sorting Options

SmartDraw will try to detect the hierarchical sorting and select the appropriate option for you. If it cannot, you can specify the sorting manually. The two options are:

1) Assume Hierarchy from Indentation – If your file uses indentation (by any delimiter) to indicate hierarchy, select this option. Example:

```
Name    Job Title       Ext
Smith, Mary     CEO     107
        Dawson, James   Vice President Marketing        115
                Lee, Harvey     Marketing Manager       135
        Lawrence, Rebecca       Vice President Finance  134
                Davidson, Jeff  Accountant      137
        Jameson, James  CFO             106
```

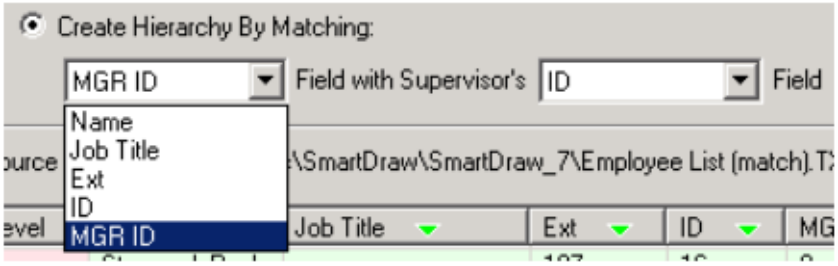
A file using Tab indentation

2) Create Hierarchy by Matching – This is the traditional "Org Plus®" method, in which a name or ID number in each record is matched to a supervisor name or ID number in another record. Example:

```
Name    Ext     ID      MGR ID
Talbot, Dan             110     9       10
Jones, Ann              101     10      16
Allen, Marcus           118     11      21
Larsen, Sylvia          108     12      17
```

Matching Fields

If you choose **Create Hierarchy by Matching** you must indicate which fields match to with which. SmartDraw will try to figure this out for you. If it cannot, you can manually specify the field matching using the drop-down lists.



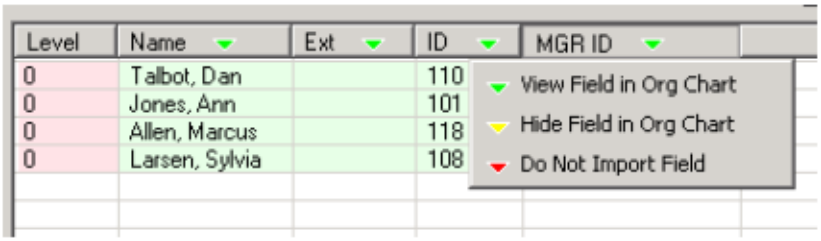
Choosing Fields to match for Import

Level	Name	Ext	ID	MGR ID
0	Talbot, Dan		110	9
0	Jones, Ann		101	12
0	Allen, Marcus		118	10
0	Larsen, Sylvia		108	14

Matched fields ready for import

Field Import Options

You can choose whether any given field will be imported and, if so, whether it will be visible in the org chart.



Field Import Options

Click on the colored arrow next to the field name on the gray header buttons to choose one of the three options for that field:

View Field in Org Chart

Hide Field in Org Chart

Do Not Import Field

You can also specify the font and color of the field names using the controls on this menu.

Rules and Behavior of the Org Chart Import Function

The **Org Chart Import** function interprets the data file according to the following rules:

The import will delete any non-shape objects (such as images or symbols) linked to a Connector.

If no Connector line is found in the document, SmartDraw will create a new one using a default box shape to contain the data records.

The fields in each data record (unless hidden or not imported) will be stacked one atop another in the boxes. Each box is a Table, and each field occupies a separate cell in the table.

An imported Org Chart always has the Automatically Space Boxes option (on the More menu of the Org Chart SmartPanel) turned on.

Exporting Org Charts to Data Files

The **Export Org Chart to Data** function relies on many of the same functions found in the Import Chart from Data command (only in reverse), so a careful reading of that section will help you understand the export behavior.

This function is available only from the **Export Chart to Data** command on the Advanced Options menu of the **Org Chart SmartPanel**.

Rules and Behaviors of the Org Chart Export:

Exporting creates a text file with tab-indented hierarchy, commas as field separators, and a line break (CR\LF) at the end of each record.

Each position (box) in the chart produces one record.

Field Names are exported to the first record of the text file if any box in the chart has visible field names.

All data fields are exported, with the following exceptions:

If a field was globally hidden on import, it will be invisible in the chart, but appended as the last field in each record on export.

If a box contains multiple rows of text with line breaks (CR\LF) between rows, each row will be exported as a separate field, as if it were in a table cell. If the text is simply one long string wrapped into several rows, it will export as one field.

Empty table cells (fields) are exported as a delimiter.

If a box contains no text and no table, it is skipped.

If a document contains two or more separate org charts (separate Automatic Connector trees), only one will be exported at a time, either (a) the chart containing an object that is selected, or (b) if nothing is selected, the chart that was created first.

Symbol Libraries

Symbol Library Windows

SmartDraw contains hundreds of **Symbol Libraries** - ready-made collections of shapes, objects, and graphics that you can add to your drawings.

Each type of drawing (flowcharts, maps, calendars, etc.) comes with its own unique set of symbol libraries.

Symbol Library Windows

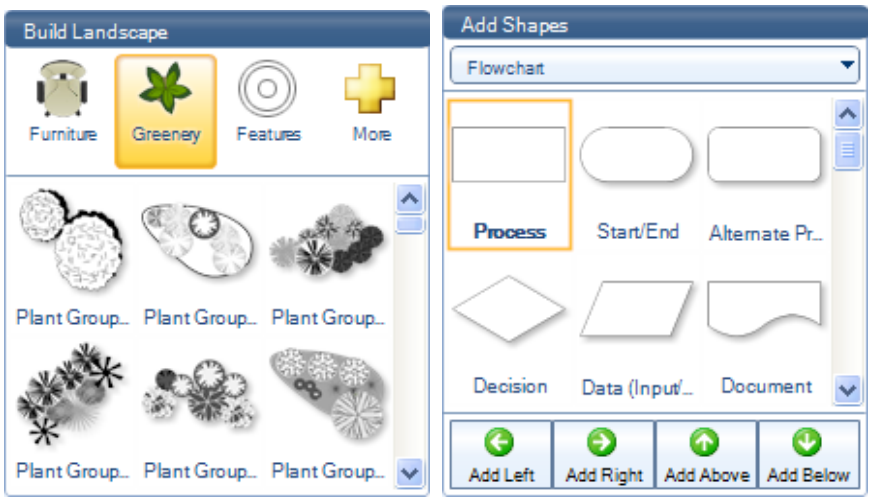
A symbol library appears in a window containing icons that represent various symbols.

An open symbol library window can appear in three different locations on your screen.

- A small group in the SmartPanel
- Docked in the Left Panel (the normal position)
- As a Floating Window

Libraries in the SmartPanel

Diagram types that typically require the use of symbols and shapes have a Symbol Library Gallery in their **SmartPanel**, so this is the Library you will likely use most often. This Gallery will be customized to fit the specific needs of the diagram type. For example, the Flowcharts Gallery has buttons along the bottom for adding a linked shape above, below, to the left, or to the right of the selected shape.



Some Galleries have Library Selector Drop Menus at the top (such as Flowcharts, although most galleries do not have the buttons along the bottom), while others have Library Selector Buttons (such as Landscape Design).

You can open additional libraries using the **More** commands, either found as a button or a choice on the selector menu. For more on this, see Searching the Symbol Libraries.

Libraries Docked in the Left Panel

Even if the SmartPanel does not have a library, the Left Panel still contains the **Library** tab.

You can open as many libraries as you wish. To switch between them, click on the **Library Selector Menu** and select a different library. To add a symbol from a docked library to your drawing, just click on it, then click in the work area to place it there.

See also Searching the Symbol Libraries

See also Adding Objects to Your Drawing.

Floating Libraries

A symbol library can "float" over your drawing area, allowing you to drag it from place to place. Up to 16 library windows can be open at the same time, each showing the contents of a different library.

To make a library that is docked in the Left Panel float, right click in the library window and choose **Detach Library.**

Floating Library Window

To re-dock a floating library, just drag it back to the Left Panel.

When you click the minimize button at the top right of the floating window, it shrinks the library to a minimized window at the bottom of your screen. This is useful if you want to temporarily move a library window out of the way without docking it at the side of the screen.

Adding Symbols to a Drawing

To add a symbol from a library to your drawing, click on one of the symbols in the open library then click in your drawing to add it there. Alternatatively, you can click and drag a symbol from the library into the drawing.

Automatic Scaling of Symbols

Some symbols have the property of automatically re-sizing themselves based on the current ruler settings as they are added to a drawing. For example, if a drawing has rulers set so that one screen inch is equivalent to 48 inches, then a 36-inch desk symbol will be sized automatically to be 0.75 inches when added to the drawing. This is useful in floor plans and other scaled drawings. See Changing the Settings for a Symbol.

Removing a Symbol from a Library

You can remove a symbol from a library by right-clicking on it in the library window, and then selecting **Remove Symbol**.

Changing the Settings of Symbols in a Library

You can permanently change the settings (properties) of a symbol in a library by right-clicking on the symbol and choosing **Edit Symbol** from the right-click menu. See Changing the Settings for a Symbol

Automatic vs. Metafile Symbols

Symbol Types

There are two types of symbols in the SmartDraw Symbol libraries: Automatic and Metafile.

Automatic symbols are native SmartDraw objects (such as the standard shapes found on the Home Tab). Metafile symbols are images in Enhanced Metafile Format (EMF) or Windows Metafile format (WMF).

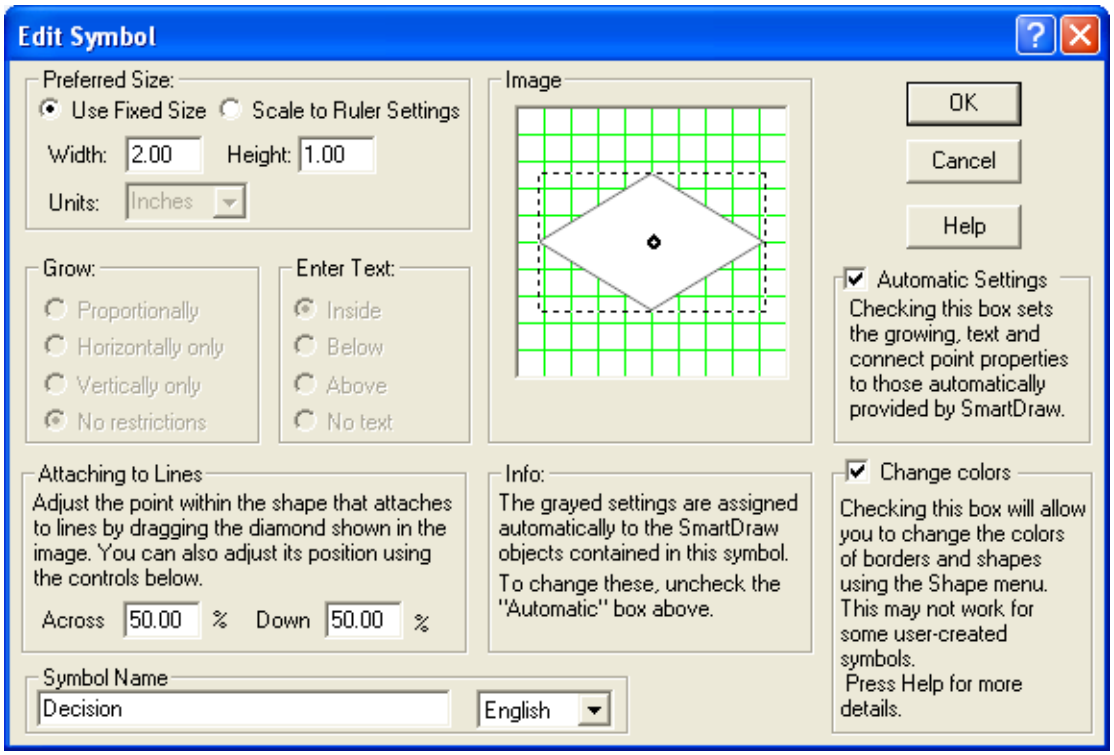
Both types have similar properties when added to a SmartDraw document: They can be rotated, flipped, colored, typed into, and manipulated in many of the same ways.

But only automatic symbols have all the special properties of the native SmartDraw shapes, including the ability to be decomposed into freeform shapes.

Changing the Settings for a Symbol

Each SmartDraw symbol has dozens of properties that you can customize using the **Edit Symbol** dialog. You can open this dialog for any symbol by right-clicking on that symbol in an open library window (not in the work area) and choosing **Edit Symbol** from the right-click menu.

These properties include everything from the way the symbol can change color, to the way objects connect to it, the way text appears in it, the way it can be resized, and much more.



The Edit Symbol Dialog

Automatic Settings

If **Automatic Settings** is checked in the Edit Symbol dialog, the symbol was originally created with SmartDraw and will behave as a native SmartDraw object when added to a drawing. You cannot override the properties of a symbol with Automatic Settings checked.

If the box is unchecked, or if you uncheck it, the symbol behaves like an imported image. You can set its properties (width, height, resizing behavior and text entry).

Symbols created in SmartDraw itself can be set to be either Automatic or non-Automatic.

Symbols created outside SmartDraw cannot have automatic settings, so for these symbols the Automatic checkbox is disabled.

Preferred Size

The width and height fields in the Edit Symbol dialog control the size of the symbol when it is added to the page. If the **Grow** setting is **Proportional**, changing one dimension changes the other, to maintain the original proportions.

This setting is disabled (gray) for automatic symbols composed of more than one native object, since their original size is always maintained.

There are two ways to set the preferred size that a symbol takes when added to a drawing: **Use Fixed Size** and **Scale to Ruler Settings**.

If **Use Fixed Size** is selected, the shape is sized to exactly the width and the height specified *on the screen*, regardless of the rulers' settings for the drawing. Your Windows control panel sets the units of this measurement. If your system is set to use metric units the dimensions are in centimeters, otherwise they are in inches.

If **Scale to Ruler Settings** is selected, the symbol will scale to the size dictated by the ruler settings of the drawing. For example, if you set the preferred size for the symbol to be 1.0 meter, and you add the symbol to a drawing with a ruler scale of 1.0 meter to the inch, the symbol will be drawn 1.0 inch long on the screen. However, if you add the symbol to a different drawing with a scale of 0.1 meters to the inch, the symbol will be drawn 10 inches long.

Scale to Ruler Settings is useful for drawing scaled drawings like floor plans.

Grow

The four **Grow** settings in the Edit Symbol dialog control the way you can resize the symbol. These settings are inactive for Automatic symbols.

Proportional drawings have only four growth handles (one at each corner) and maintain their proportions when re-sized.

Horizontal Only symbols have two growth handles and can be re-sized only horizontally.

Vertical Only symbols have two grow handles and can be re-sized only vertically.

No restrictions allows the symbol to grow in all directions without maintaining its proportions. These symbols have the usual 8 growth handles on the four sides and four corners.

You can change these settings for a single instance of a symbol that is **already on your page** by clicking on the **Dialog Launcher** for the **Shape Properties** group on the **Design** tab. Doing this will not change the master copy of that symbol in the library.

Enter Text

Using the Text settings in the Edit Symbol dialog, you can change the way text appears in a symbol. This text can be **Inside** the symbol as in the standard toolbar shapes, or **Above** or **Below** it. The fourth choice, **No text**, means that the symbol will not allow text entry at all.

If Enter Text **Inside** is selected in the Edit Symbol dialog, four margin lines appear on the symbol Image window. These lines set the boundaries of the text area. You should adjust them to keep your text inside the symbol.

You can adjust the text **margin lines** by clicking on the square handles at either end or dragging. By default, the lines are set to create the smallest text entry area possible. Drag them to expand it, but keep the text area inside the boundaries of the symbol. When text is entered **Above** or **Below** the symbol, the margin lines are ignored.

The Text settings are inactive for Automatic symbols.

Changing the Way Symbols Attach to Lines

In the Edit Symbol dialog you can adjust the **Attachment Point** where the symbol would be attached to a line if placed on top of one. The attachment point looks like a **hollow diamond** (usually in the center of the symbol). You can use the **Across** and **Down** settings to place it by specifying a percentage from the top-left of the shape. Or you can manually drag the attachment point with the mouse.

Grouped symbols cannot have Attachment Points.

See also Modifying Connection Points.

Adjusting Connection Points in the Image Window

The image window in the Edit Symbol dialog shows the symbol image against a grid of green lines. A dotted border shows the edges of the rectangle that encloses the symbol.

A non-automatic symbol has 16 **Connection Points**. These are the points at which lines and other shapes will link to this symbol. Automatic symbols don't show the connection points because theirs can't be adjusted.

Each **line-linking** Connection Point appears as a small black square, and when selected as a black circle.

The **Attachment Point** appears as a small black diamond, and when it selected as a large black diamond.

You can **drag** a connection point with the mouse to a new location within the boundaries of the shape, or you can type the four **arrow keys** to move one that you've selected by clicking on it..

To be active, connection points must lie outside the text margin lines (whether the text setting is **Inside** or not).

Adding and Deleting Connection Points

You can delete a selected Connection Point in the Image window of the Edit Symbol dialog by typing the **backspace** or **delete** key. The Attachment point (diamond) cannot be deleted.

You can **add** a new point by holding Ctrl while you click. Each symbol can have a maximum of 16 connection points.

Holding down Ctrl and using the arrow keys **moves the selection** from one point to another.

Dragging a Connection Point outside the boundaries of the symbol deletes it.

See also:

Shape Connection Points

Linking a Line to a Shape

Change Colors

Checking the **Change Colors** box in the Edit Symbol dialog allows SmartDraw to automatically change the fill color, line color, border color and other properties of a symbol the moment it is added to a drawing, in order to conform with an existing color scheme in that drawing.

If Change Colors is turned off, the symbol behaves like an imported image. SmartDraw cannot adapt it to the color scheme of the existing drawing. For example, applying a border style places a border around the entire symbol but does not change the look of the lines making up the symbol itself, which cannot be overridden. Also, the symbol retains its original linking properties and other settings, instead of being overridden by the current default settings for that drawing.

When Change Colors is turned on, the color of the lines and borders follow the current **Line Color** setting. The fill follows the **Fill Color**. Transparent fills are not affected by the fill color.

The substitution of colors for lines, fills etc. may not work for all symbols. If the symbol contains bitmapped images these may be unaffected by checking the color box.

If you turn on Change Colors, you should experiment with a copy of the symbol to see how it is affected. If the result is unsatisfactory, return to the dialog and un-check the box again.

When a symbol is set to **Automatic**, the colors and other properties will always change to adopt the current color scheme in the drawing. Only native SmartDraw shapes can have the Automatic setting.

Symbol Name and Keywords

Each symbol should have a unique name in the Edit Symbol dialog. The names are searched when you Search for symbols in the left panel.

You can also assign **keywords** to symbols to help locate them in a search. Put a semicolon after the symbol name, then list your keywords, each separated by a space. Any words after the semicolon do not appear on the symbol buttons shown in the library window.

You can add names in different languages, by dropping the language menu beside the name box. By default, the Search function will look for names matching the current language setting of your SmartDraw program. If a native name is not present, English is used.

Adding New Symbols to a Library

Adding Symbols from SmartDraw

Adding new symbols to libraries is a simple Drag and Drop operation. Any object, or collection of objects, dragged from the SmartDraw page and dropped onto a library window can become a new symbol.

 When you drag a symbol over an open library window, the cursor changes to the Library Drop Cursor. If you release the mouse button, the Edit Symbol dialog appears. The new symbol appears in the Image window. Pressing OK adds the objects to the library as a new symbol.

Before pressing OK, you should specify the settings for your symbol. You may want to leave them as is, but you should always give the symbols a unique name. For details on symbol settings, see Changing the Settings for a Symbol.

Entire groups or arrangements of objects can be stored and retrieved in libraries as one unit, so you can use symbol libraries as a scrapbook for pieces of diagrams you might want to reuse.

Adding a Symbol from Another Program to a Library

You can use almost any Windows drawing program to create a new symbol. You first need to Copy the symbol to the clipboard in the other program using its Copy command.

Then paste it on your page in SmartDraw, and drag it to an open symbol library in the left panel.

Images from other programs cannot have Automatic settings.

See Changing the Settings for a Symbol.

Transferring Symbols between Libraries

Copying a symbol from one library to another is a simple drag-and-drop procedure.

Open the two libraries that you want to copy symbols between. Place the symbol you want to copy on the page, and then drag it into the other library.

Alternately, you can make one of the libraries **float** by right clicking in its background and choosing **Detach Library**. Then simply drag the symbol with the mouse from one library window to the other.

 When releasing the mouse would result in copying the symbol to another library, the cursor will change to the Drop Library Symbol cursor.

You can use this feature to collect the symbols you use most often into one or two libraries for easy access. You can also use it to sort the order of the symbols in the library by dragging them in the order you want to a new library.

Sorting Library Symbols

If you drag a symbol from one library to another it will enter the symbol sequence in the position where you drop it.

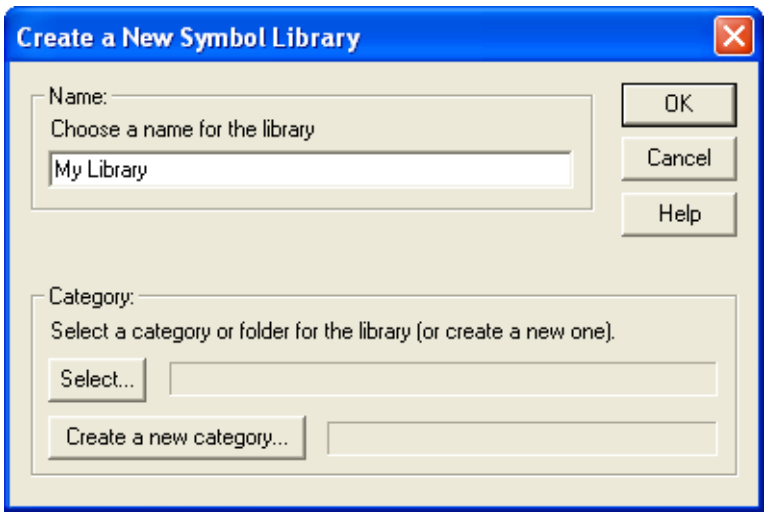
If you drag an object from a drawing directly into a library, it will appear at the end of the symbols sequence.

You can **rearrange** the order of the symbols in a library by holding the **Ctrl** key while dragging them with the mouse from one location to another.

Creating a New Symbol Library

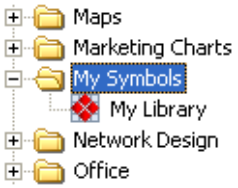
You can create your own symbol libraries by clicking the **SmartDraw Button** and clicking **Create Library** under **Library**.

This opens the **Create a New Symbol Library** dialog.



The Create a New Symbol Dialog

Your library will be saved in the **My Symbols** folder in the Symbol Explorer Tree which appears in the left side of the **More Symbols** dialog. This is the dialog you see when you Browse for more symbols using the **More** command of a Library Selector.



You can create a **sub-category** in My Symbols by selecting the **Create New Category** button. The subcategory appears immediately in The Explorer Tree, and the new library opens as a floating library window above you drawing. You can dock the floating library in the left panel if you like by dragging it there.

Your new library window, because it is empty, will have no symbol buttons. You can add symbols to the new library by dragging them from the page, from other SmartDraw drawings, or other symbol libraries.

See Adding New Symbols to a Library

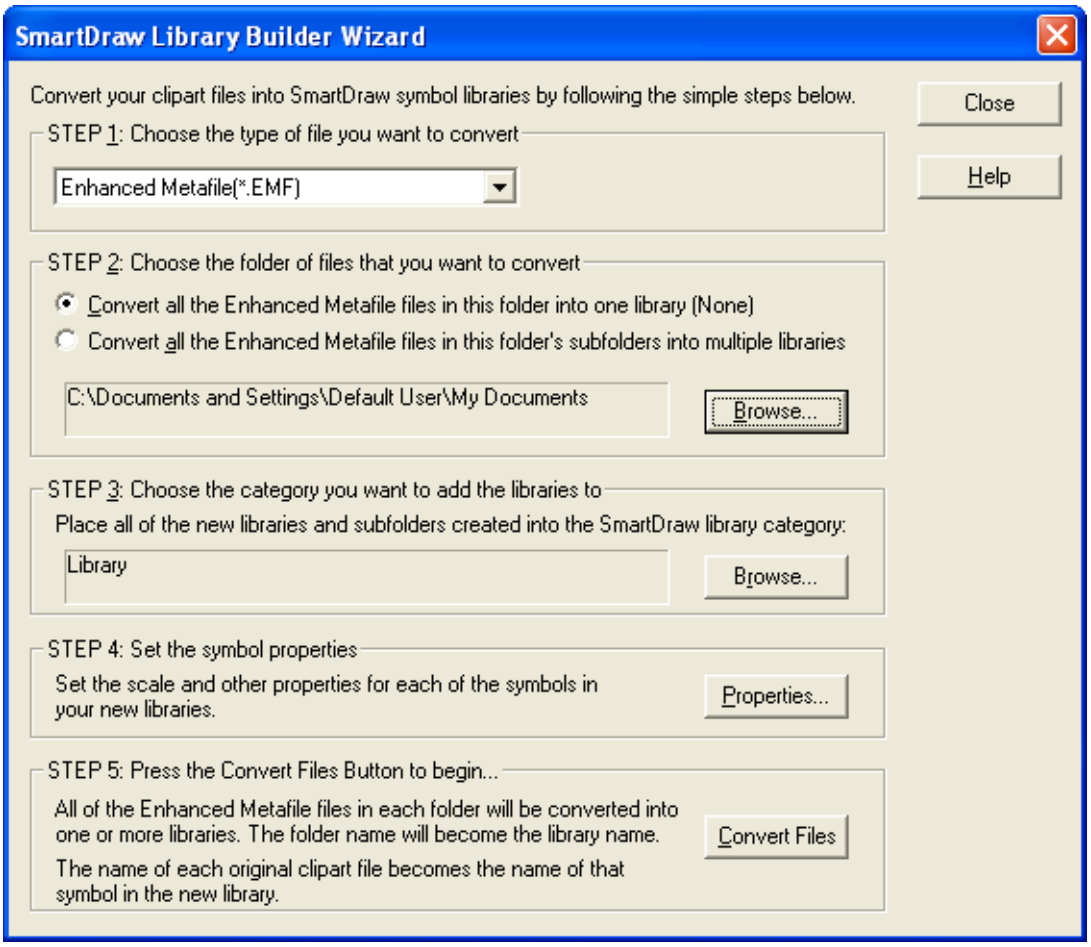
See Transferring Symbols between Libraries

The Library Builder Wizard

The **Library Builder Wizard** converts graphics files in many popular formats into SmartDraw libraries. It can convert an entire folder of graphics files into one or more libraries, or even convert a file tree of many folders into many libraries organized into categories.

The **Library Builder Wizard** is ideal for converting your clip art files into SmartDraw symbols. It can convert thousands of images in just a few minutes.

Open the **Library Builder Wizard** by clicking the **SmartDraw Button**, then selecting **Library Builder Wizard** under **Library**.



The Library Builder Wizard

The five steps to converting files in the Wizard:

STEP 1: Choose the File Format

Select the file format of the graphics files that you want to import. Files in scaleable formats like Windows Metafiles (WMF, EMF), Postscript, and AutoCAD formats make better SmartDraw symbols than non-scaleable bitmapped files like BMP, JPG and GIF.

STEP 2: Select the Files to Convert

Use the **Browse** button to select the folder containing the files you want to convert.

You have two options in converting the files:

1) Selecting **Convert all of the files in this folder into one library,** will convert any files specified in that folder into a new library with the same name as that folder. For example, if you are converting 20 WMF files from a folder called *Garden Tools*, these will be converted into one library called *Garden Tools*.

If there are more than 100 files in the folder selected, then two or more libraries will be created. They will be numbered: *Garden Tools-1, Garden Tools-2* and so on.

2) Selecting **Convert all of the files in this folder's subfolders into multiple libraries** will convert any files of the selected type in the specified folder's *subfolders* into separate libraries, each with the same name as their subfolder.

For example, if the *Tools* folder is selected, and it contains three subfolders called *Garden Tools*, *Garage Tools* and *Woodshop Tools*, three libraries called *Garden Tools*, *Garage Tools* and *Woodshop Tools* will be created.

If the subfolders like *Garden Tools* themselves contain subfolders, then files in these subfolders will also be converted into libraries with their subfolder name and so on: The whole folder tree starting with the folder selected will be converted into a matching tree of libraries.

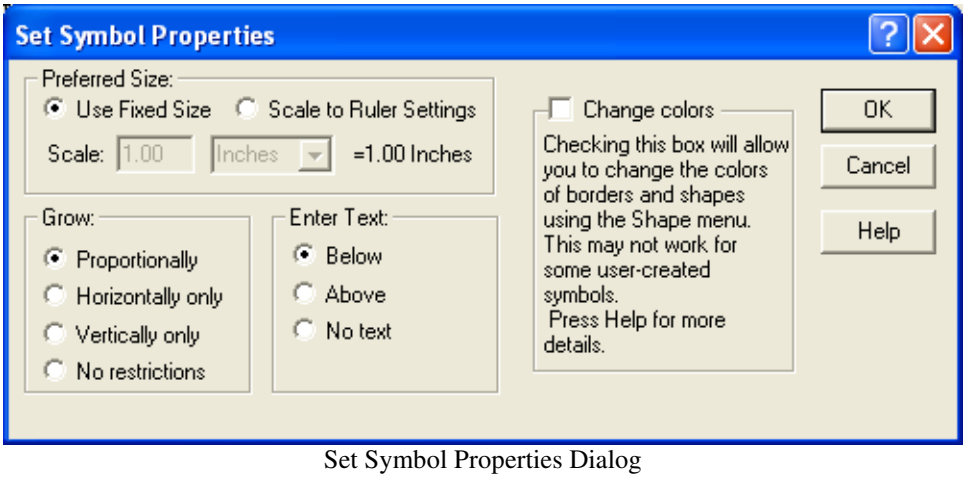
STEP 3: Select the Category for the New Libraries

Use the **Browse** button to select the library category that will contain your newly created library. For example, if you choose **ClipArt & Flyers\Tools** as the category, using our earlier example, the new library *Garden Tools* will be created in this category and will appear there as an icon in the symbol Explorer Tree.

If you choose to generate a tree of libraries, by selecting **Convert all of the files in this folder's subfolders into multiple libraries** in STEP 2, the whole tree will be added to the category you choose.

STEP 4: Select the Symbol Properties

You can also specify the properties of the symbols in the new library by clicking on the **Properties** button in STEP 4. This displays the **Set Symbol Properties Dialog**.



Set Symbol Properties Dialog

You can choose how the symbols will grow, where text will be attached to it, and whether it will respond to color changes. These settings are explained in more detail in the Changing the Settings for a Symbol section.

STEP 5: Convert the Files

The final step is to press the **Convert Files** button to begin the conversion process. You can watch the libraries being built, symbol-by-symbol. Once the conversion is completed, the symbol Explorer Tree updates itself and expands to show the new libraries.

Sharing Libraries on a Network

Symbol Libraries can be shared by multiple users on a network.

When a library is opened by more than one user, all users after the first one to open the library view it as read-only.

Only the first user to open the library has write permission. Read-only libraries cannot be edited, and symbols cannot be added or removed.

Drawing Freeform Shapes and Lines

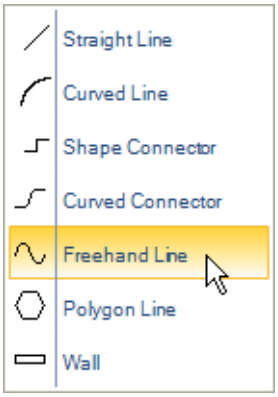
Drawing Freeform Lines and Shapes

You can use freeform drawing to create lines or shapes of any design you like.

There are two freeform drawing tools found under the **Line Tool** on the **Home** tab.

The Freehand Line

The Polygon Line



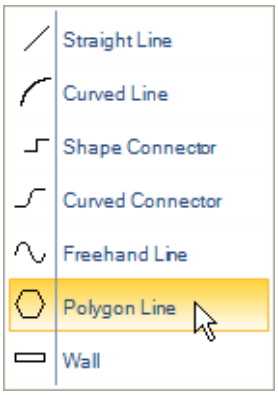
See The Polygon Line Tool

See The Freehand Line Tool

The Polygon Line Tool

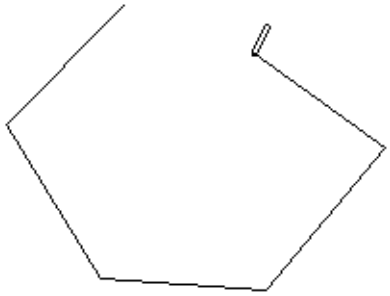
The Polygon Line Tool draws a line or shape consisting of continuous **straight line segments**.

Select the **Polygon Line** from the **Line Tool** menu on the **Home** tab.



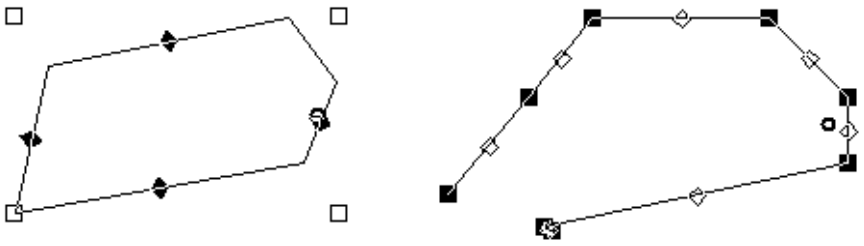
Then click in the drawing area to start your first segment. Move the mouse to the point where you want that segment to end, and click again.

Continue this process, adding a new segment for each point that you click.



Drawing with the Polygon Tool

You can terminate the drawing operation by clicking with the **right mouse** button, typing the **Escape Key** or by **double-clicking**. If you **double-click**, the end of your line is automatically joined to the beginning to make a closed shape. If you right-click or hit Escape, the ends of the line are not automatically joined unless you specifically click on the starting point of the line.

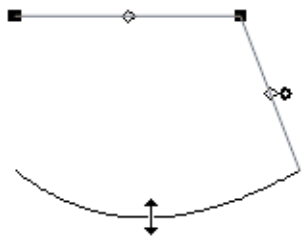


A Closed Shape and a Freeform Line

Each segment in the line or shape you draw with the Polygon tool is initially a straight line with a diamond-shaped **adjustment handle** in the center. If you click on the adjustment handle you can drag the segment to become a parabolic curve.

You can also click on the square **growth handles** at the end of each segment and change the shape of your object. Using these handles, and some of the

additionaloutline-modification properties, you can draw just about any kind of shape or line.

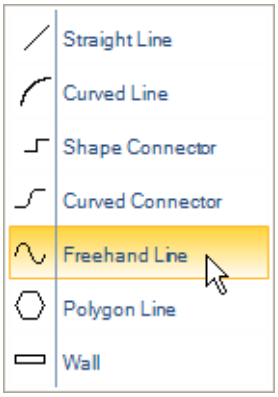


Using the Adjustment Handles

The Freehand Line Tool

The Freehand Line tool draws a line or shape consisting of a smooth continuous line. Using this tool is like drawing with a pen.

Select the **Freehand Line** from the **Line Tool** menu on the **Drawing Area Toolbar**.



Then click in the drawing area to start your line. Draw with the mouse while holding the left button down as if you were using a pen. You can make sharp corners or smooth curves. To stop drawing, release the mouse button.

Continue this process, adding a new segment for each point that you click.

Drawing with the Freehand Line Tool

SmartDraw automatically smoothes the line you draw to fit a series **of curved line segments**.

To draw **straight line segments** hold down the **Shift Key** while you draw. Releasing the key restores the pen to its continuous drawing mode.

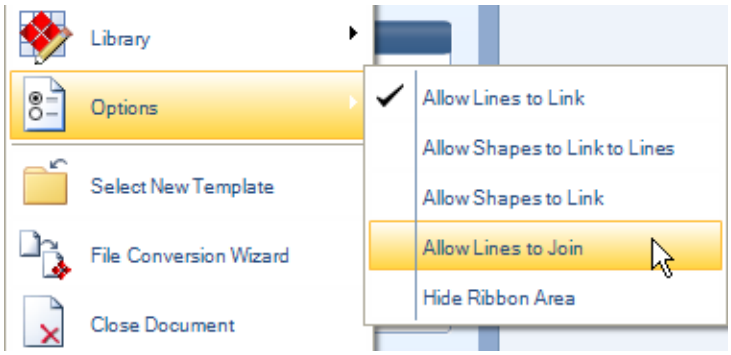
If you return to your starting point, the line will join to create a closed shape, which can be filled with color like the other geometric shapes available on the toolbar.

Joining Freeform Lines to Each Other

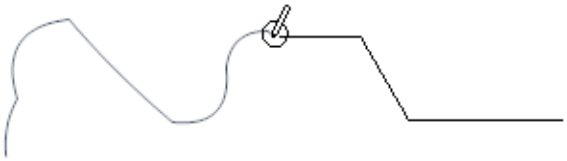
You've seen that the Freeform line tools can be used to draw continuous lines or even closed shapes.

But what if you have an existing line already on the page that you want to **join** (not link) to another to create a continuous line? Or to close a shape? Or if you want to use one of the other line tools (straight line, curved line, etc.) to draw a closed shape?

For existing lines, or non-freeform lines, to be able to join continuously or create close shapes, you must turn on **Allow Lines to Join** in **Options** under the **SmartDraw Button**.



When this setting is turned on, and when your mouse is positioned so that one line segment will join to the end of another, a **circle** appears around the end of the pen cursor.



If you click and draw at that point the new line will be joined to the previous one.

You can join one line to another in two ways:

While you draw the second line (as shown above).

By dragging the **end handle** of one existing line to the end handle of another.

If you drag the end handle of a multi-segment freeform line to its *own other end* you create a closed shape.

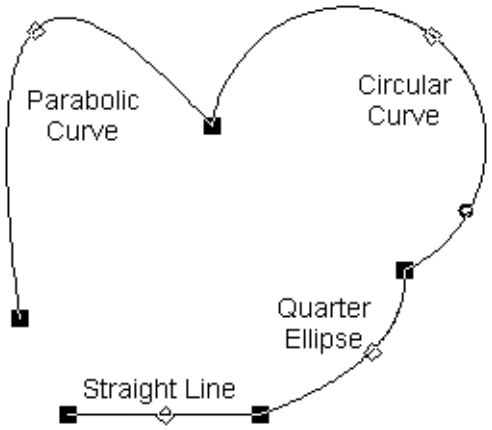
Freeform lines can be composed of four kinds of segments depending on the line tool you use to draw each section.

Straight Lines are drawn with the straight line tool or Shape Connector Tool.

Circular Curves are drawn Curved Line Tool.

Parabolic Curves are drawn with the freeform drawing tools.

Quarter Ellipses are drawn by right-clicking on the line segment and using the **Change Line Segment Shape** command on the right-click menu to select a Quarter Elipse.



The Freeform Line Segment Types

By using combinations of these line types and adjusting them with the adjustment handles, you can shape a line just about any way you want.

You can always change any segment to one of the other shapes by right-clicking on the line segment and using the **Change Line Segment Shape** command on the right-click menu

Separating Joined Lines

You can detach joined lines by right-clicking on the freeform line and using the **Split Into Two Lines** command on the right-click menu. The line is split at the corner growth handle adjacent to the point at which you clicked.

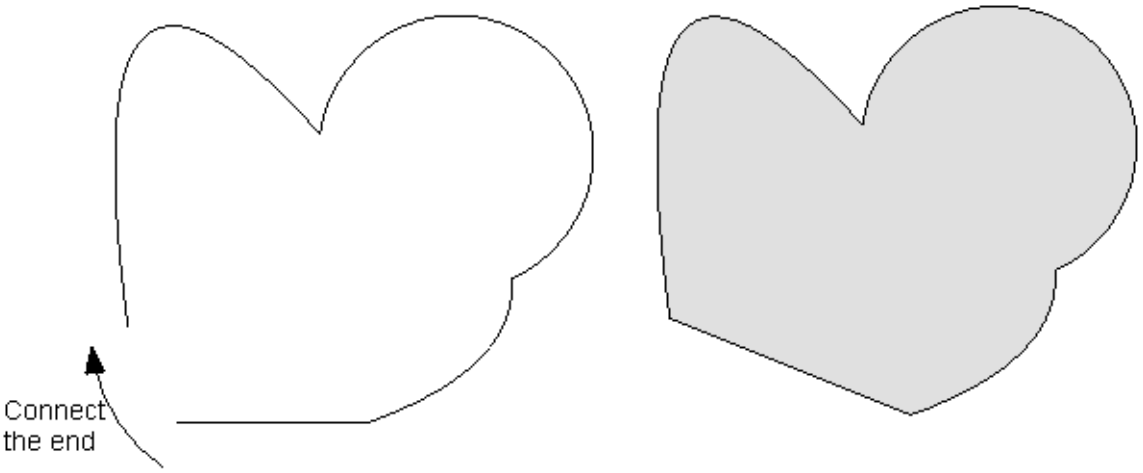
If you've joined your line into a closed shape, to separate it you must select it then use **Edit Shape Outline** under **Change Shape** of the **Design** tab. Once you have clicked **Edit Shape Outline**, you can right click on the line as before and select **Split Into Two Lines**.

Creating Closed Freeform Shapes

When drawing with the Freeform Line tools, if you connect the end of the freeform line to its starting point, the shape becomes **closed**. (If you hold the **Ctrl Key** down this automatic closing feature is overridden).

You can also close an existing freeform line into a shape by selecting it, then clicking on the growth handle at one end and dragging it with the mouse to connect to the other end. In addition, if Allow Lines to Join is turned on, you can also connect the ends of a line by drawing a new line segment between them to close the shape.

 When your line is ready to join another, the cursor changes to the Join Line cursor, with a circle around the end of the pen.



Joining the Ends of a Line to Make a New Shape

You can continue to adjust the outline of a shape created this way by clicking on its growth handles and adjustment handles while it is **selected** after closing it.

Like other shapes, you can type into it, fill it with colors, and change the appearance of its border and so on.

You can also **edit the outline** of the shape by using the **Edit Shape Outline** command from **Change Shape** of the **Design** tab.

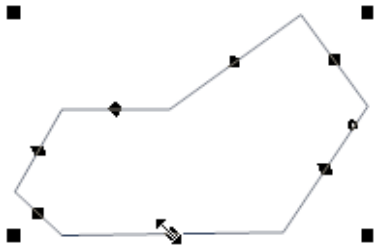
See Drawing Freeform Lines and Shapes.

See Editing the Outlines of Shapes

Flexible Reshaping of Freeform Shapes

Closed freeform shapes (technically called polygons) have a unique **reshaping** property that is not available on other, simpler shapes.

When selected, a freeform shape has an extra set of growth handles, called **reshaping handles**, which appear as **black diamonds**, one in the middle of each segment of the polygon. (For curved segments, the diamond appears on the imaginary straight line between the two ends of the segment).

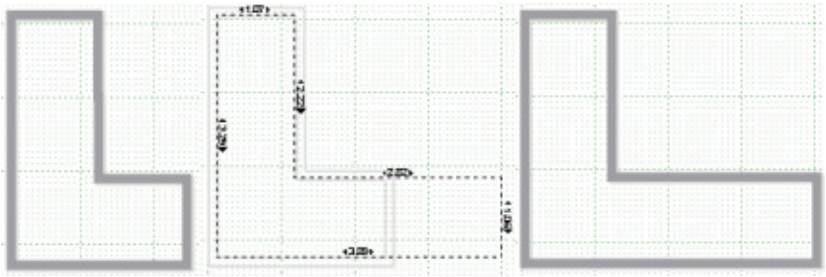


Additional Reshaping Handles on Freeform Shapes

The reshaping handle allows that side of the shape to be extended in a direction **perpendicular** to the side of the shape.

This reshaping property allows you to extend one "wing" or protuberance of a shape, and without distorting the proportions of the other parts of the shape.

As an example of how this may be useful, consider the floor plan of an L-shaped room. If you want to extend one wing of the L shape without altering the other wing, you can pull on the diamond **reshaping** handle to extend the desired section without altering the other part of the room.



Reshaping one part of a freeform shape

This reshaping behavior is unique to polygon shapes created with the Freeform Drawing Tools, or by editing the outline of the standard shapes found on The Work Area Toolbar, which turns them into freeform polygons.

See Drawing Freeform Lines and Shapes.

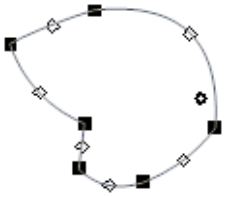
Editing the Outline of Shapes

You can edit the outline of any of the standard shapes found in the Shape Tool on theHome Tab, or any shape created using the Freeform line tools.

To edit the outline of a shape, select the shape and then use the **Edit Shape Outline** command on the **Change Shape** menu of the **Design** tab.

If the shape was created with freeform drawing (or has been edited before) you can also click on the border of the selected shape with the **Ctrl Key** held down as a shortcut outline-editing mode.

Control Points appear at the junctions of the outline segments, and **Curve Adjustment Handles** appear on or near each curved segment.



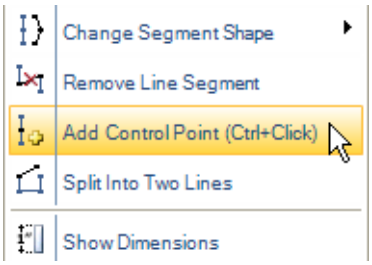
Edit Shape Outline

During the editing session, any text inside the shape is hidden, and if the shape has been rotated or flipped it reverts temporarily to its "remembered" original orientation. It will return to its proper orientation when the editing is finished.

You can adjust the outline of the shape by dragging the control points and adjustment handles with the mouse. You can also add and remove controls points, and change the shape of the individual line segments, as described below.

Inserting New Line Segments in Freeform Shapes

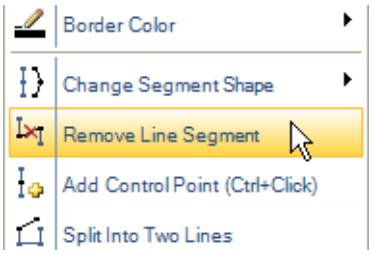
When you are Editing the Outline of Shapes, if you right-click on a segment of the shape, a menu appears. The command **Add Control Point** on this menu divides the segment at the point of the right-click into two line segments by adding a new control point. You can also add control points by holding down the **Ctrl Key** and clicking anywhere on the outline.



Inserting a Line Segment by creating a new Control Point

Removing Line Segments

When you right-click on the outline of a freeform shape, you can choose the **Remove Line Segment** command. This does not leave a gap in the side of the shape; it simply removes the control point at the end of the segment, and the shape closes to fill the gap. This is the reverse of inserting a segment. Alternatively, you can remove a control point (the black square at the junction of two segments) by selecting it with a Ctrl-click and typing the **Delete Key**.



Changing the Shape of Line Segments

When you right-click on a line segment in a freeform shape, you can modify the shape of that segment by choosing from the list of four shapes under **Change Line Segment Shape:**

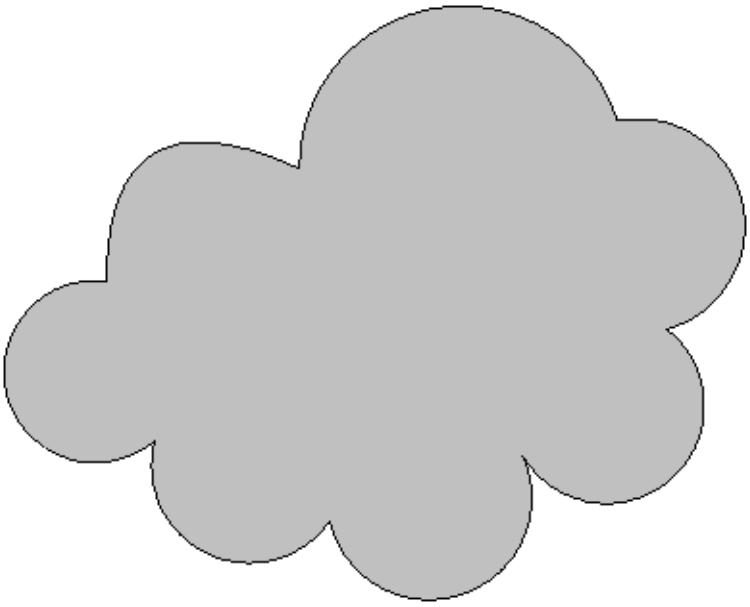
Parabola

Circular Arc

Quarter of an Ellipse

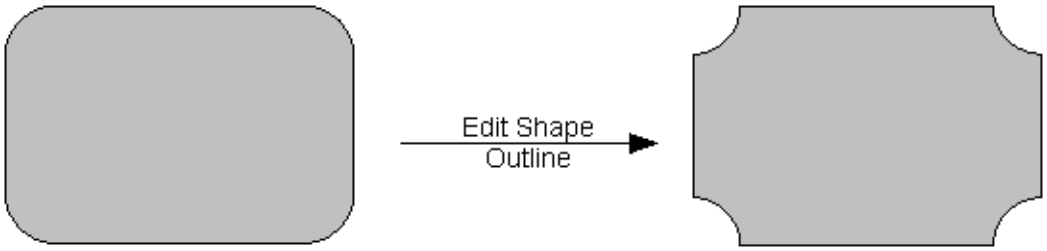
Line

All freeform shape outlines are made up of these four basic types of line segments. Curves drawn with the freeform drawing tools are made of **parabolas** by default. Outlines drawn with the other line types may consist of any combination of these types.



A Freeform Shape Using Circular Arcs

Quarter-ellipses are good for making 90-degree curves.



Editing Shapes Using Quarter Ellipses

Changing a Freeform Shape Back to a Line

When a shape is already in the outline-editing mode, right-clicking on it reveals the **Split Into Two Lines** command. This breaks the closed shape into a line (shaped exactly like the shape was), deleting any text it may contain, and removing any properties (such as fill color) unique to closed shapes.

Shortcuts for Editing Shape Outlines

There are several **Ctrl Key** shortcuts for editing the outlines of freeform shapes:

Entering Outline Editing Mode

Holding down the **Ctrl Key** and clicking on a shape that is **already selected** will put it into outline editing mode without the use of the **Edit Shape Outline** command, as

long as the shape was created with freeform drawing, or has been in an outline-editing mode before.

Adding Control Points

Holding down the **Ctrl Key** and clicking on a shape that is already in outline-editing mode adds a new control point at that location.

Selecting and Deleting Control Points

In Outline Editing Mode, Ctrl-clicking on a control point (the black square handle at the junction of two segments) selects the control point. Selected control points are green. Typing the **Delete Key** removes the selected control point.

See Editing the Outline of Shapes

See Drawing Freeform Lines and Shapes

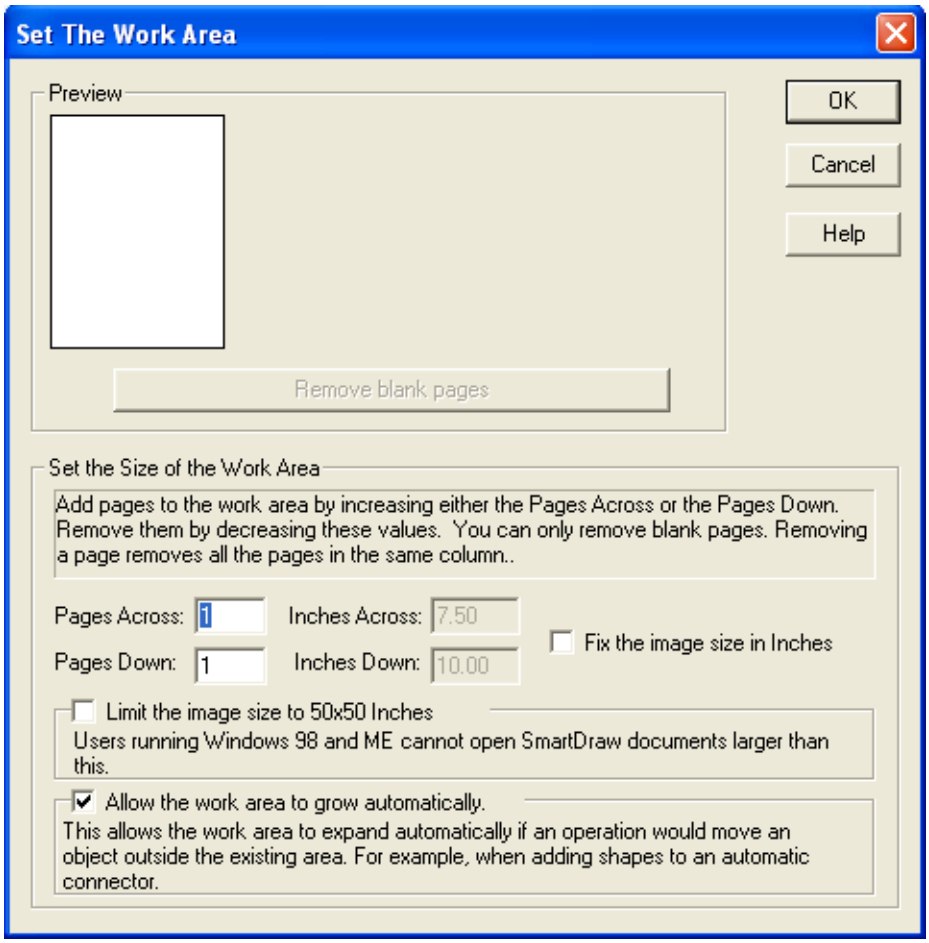
Viewing and Printing

The Drawing Area

If you are running Windows 2000, XP, or Vista, the SmartDraw work area or "page" is actually a huge space that can accommodate a drawing up to 100,000 by 100,000 inches.

If your drawing requires only a single page, you may never see the additional pages, which appear when an object extends or is placed beyond the edge of the first page.

You can define the size and properties of the drawing area using the **Work Area** command on the **Page** tab.



The Set Work Area Dialog

The drawing area is divided into "tiles" (single pages) equal in size to the printable area of the printer paper currently selected. The tile in the top left corner is page 1, and the pages are numbered consecutively to the right before wrapping to the second row. In the preview, pages used by the drawing are shown in white, and unused pages in gray.

Remove Blank Pages deletes any empty pages and moves the drawing to the top or left of the occupied area.

You can choose whether to define the drawing area in inches (or centimeters if your rulers are set to metric units), rather than pages, by checking the appropriate box. Otherwise the drawing area is a multiple of whole pages.

Under Windows 95, 98 and ME, the box labeled **Limit the image size to 50x50 Inches** is automatically selected, since the drawing area can be no larger than this. Under newer operating systems, you can check this box if you want to limit the size to 50x50, perhaps in order to exchange drawings with users of old operating systems.

If **Allow the drawing area to grow automatically** is checked, then each time an object in your drawing is placed outside the current boundaries, a new page is added to accommodate it.

See Portrait vs. Landscape Pages.

See Setting the Page Margins

Portrait vs. Landscape Pages

You can change the way your drawing prints on a page from tall (portrait) to wide (landscape) using the **Orientation** command on the **Page** tab.

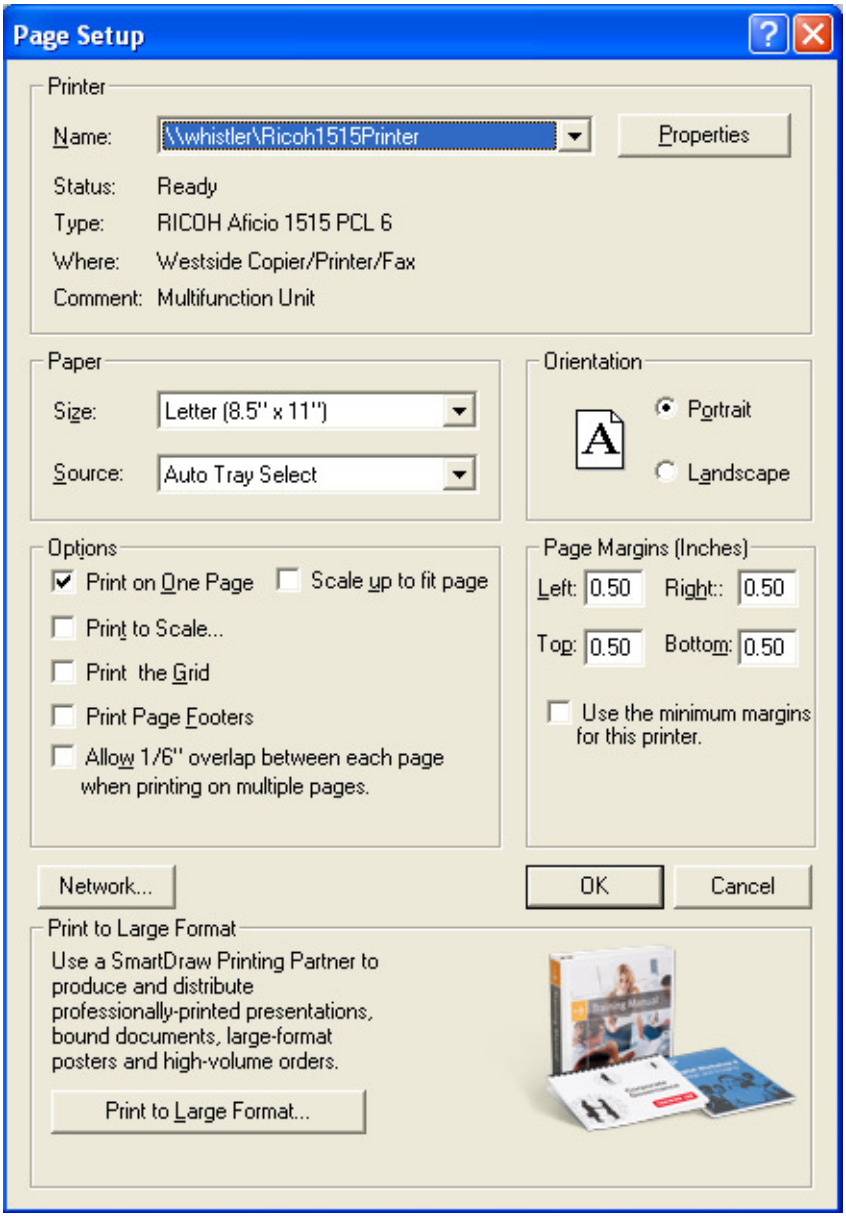
Setting the Page Margins

If your drawing occupies more than one page, an ideal printer would print to the edge of each sheet of paper so that the drawing could be pieced together afterwards to form one continuous sheet. However, almost all printers have a gap, between ¼ inch and ½ inch, at the edge of each page, into which they cannot print. SmartDraw takes this margin into account.

You can set the margins for each page of your drawing by clicking **Margins** on the **Page** tab. You can choose a fixed amount for each edge of the page or choose to use the minimum margins possible for your particular printer.

The Margins Menu

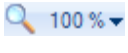
Clicking **Define** opens the Page Setup Dialog.



This minimum setting is the best choice when you want to paste multiple pages together to make a large chart.

Fixed margins are the best choice when you choose the **Print on One Page** option. This lets you control the margins for your single page of output.

Changing the View (Zoom)

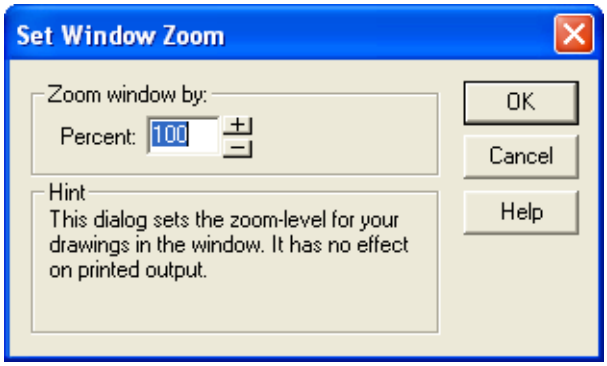


The View is the magnification at which you view the drawing area. You control the View using the **Zoom Tool** found on the **Work Area Toolbar**.

You open the **View Settings menu** by clicking on the **%** figure next to the Zoom Tool icon.

The settings **Fit to Window, Fit to Page**, **50%, 75%**, **100%**, **150%**, **200%**, **400%,** and **Custom…** control the View. 100% shows objects at their natural size. The other settings make objects look smaller or bigger than they really are.

Choosing **Custom...** opens the **Set Window Zoom Dialog**. You can use this to set the scale to any values between 5% and 1000%.



Set Window Zoom Dialog

Since all SmartDraw drawings can occupy an extraordinarily large area, unless your drawing is very large you normally work only with a small part of this potential area, up in the **top left corner**. Page 1 is the top-left page in the drawing area.

If your drawing requires only a single page, you may never see the additional pages, which appear when an object extends or is placed beyond the edge of the first page.

The **Fit to Page** selection scales the window to show at least one complete page.

Fit to Window will scale the view of your entire drawing, no matter how many pages it may contain, to be displayed within the work area onscreen.

These Zoom settings have no effect on the size of objects in the drawing when they are printed out, only as viewed on the screen.

As you change the view, SmartDraw attempts to keep all of your objects in the visible part of your window. If this is not possible, it tries to keep all selected objects in view. If this is not possible, it tries to keep the *center* of the selected set of objects centered in the window.

Zoom by Clicking

You can quickly change the magnification by clicking the **Zoom** tool icon, then clicking in the page to zoom in, or right-clicking to zoom out.

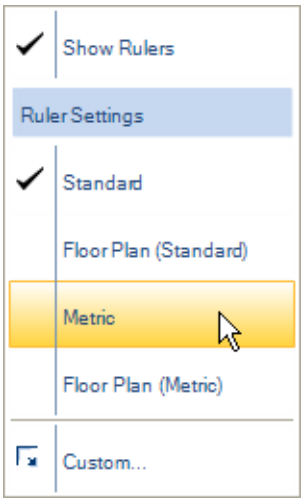
See also Setting the Ruler Scale.

Setting the Ruler Scale

For some drawing types, rulers automatically appear along the top and left edges of the work area. For other types they are hidden. In either case, you can show or hide the rulers by clicking **Show Rulers** on the **Page** tab.

Changing the Ruler Scale

You can change the ruler scale by clicking **Scale** on the **Page** tab and selecting a scale from the menu.



There are four ready-made options and a Custom command to define your own scale. The Floor Plan settings use the standard scales for floor plans.

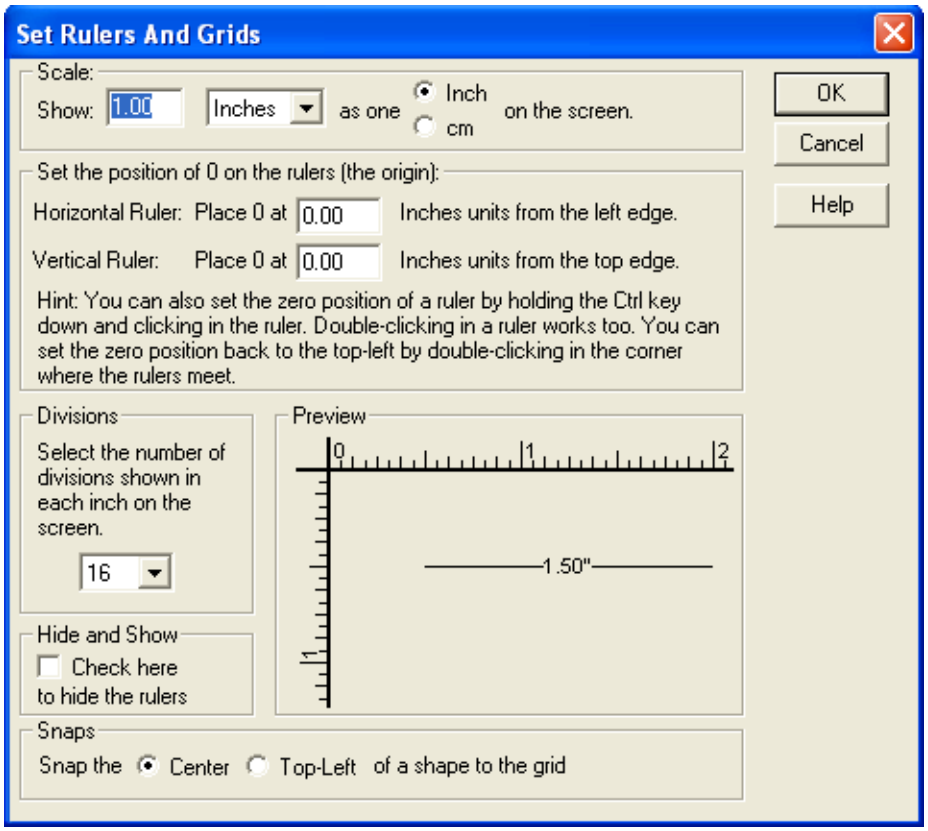
Standard - One drawing inch equals one inch on the screen.

Floor Plan (Standard) - 4 feet in the drawing equals one inch on the screen.

Metric - One drawing cm equals one cm on the screen.

Floor Plan (Metric) - 0.5 meters equals one cm on the screen.

The **Custom** option opens the Set Rulers and Grids dialog.



Set Rulers and Grid Dialog

Entering a value for **Show** sets the ruler scale, in units per inch or centimeter on the screen, depending on which setting you choose.

You specify the number of subdivisions per inch or centimeter using the drop-down list in the **Divisions** box.

The rulers can be hidden by checking or un-checking **the Hide and Show** checkbox in the dialog. This has the same effect as the equivalent command on the Page tab.

Set the position of 0 on the rulers (the origin)

You can set the origin (the zero point) of the rulers, by specifying the distance from the top left corner of the page.

Alternatively, you can set the origin manually by holding down the **Ctrl key** and clicking the ruler at your desired zero-point, or by double-clicking the ruler at that point.

Double clicking in the small square at the top left where the rulers intersect resets the origin back to the top-left.

Ruler Guides

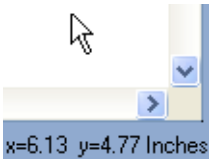
Clicking in a ruler displays a temporary dotted line, called a **Guide**, which follows the position of the cursor. This can be used to measure the position of an object in the drawing, or to see if two objects are aligned. Clicking in the upper left corner, where the two rulers meet, and then dragging the cursor into the drawing area, displays two of these lines as a cross-hair guide.

Snaps

The Snaps setting, at the bottom of this dialog, controls the way objects align themselves with the grid. In some types of drawings (like flowcharts) center snapping is best, while in others (like floor plans) edge snapping is best. By default the snaps are set appropriately based on the type of drawing template you opened, so change them with caution.

Coordinates in Status Bar

The **Status Bar** in the lower-right corner of the document window displays the X and Y coordinates of the cursor, and the dimensions of any currently selected shape, in the units of the ruler.



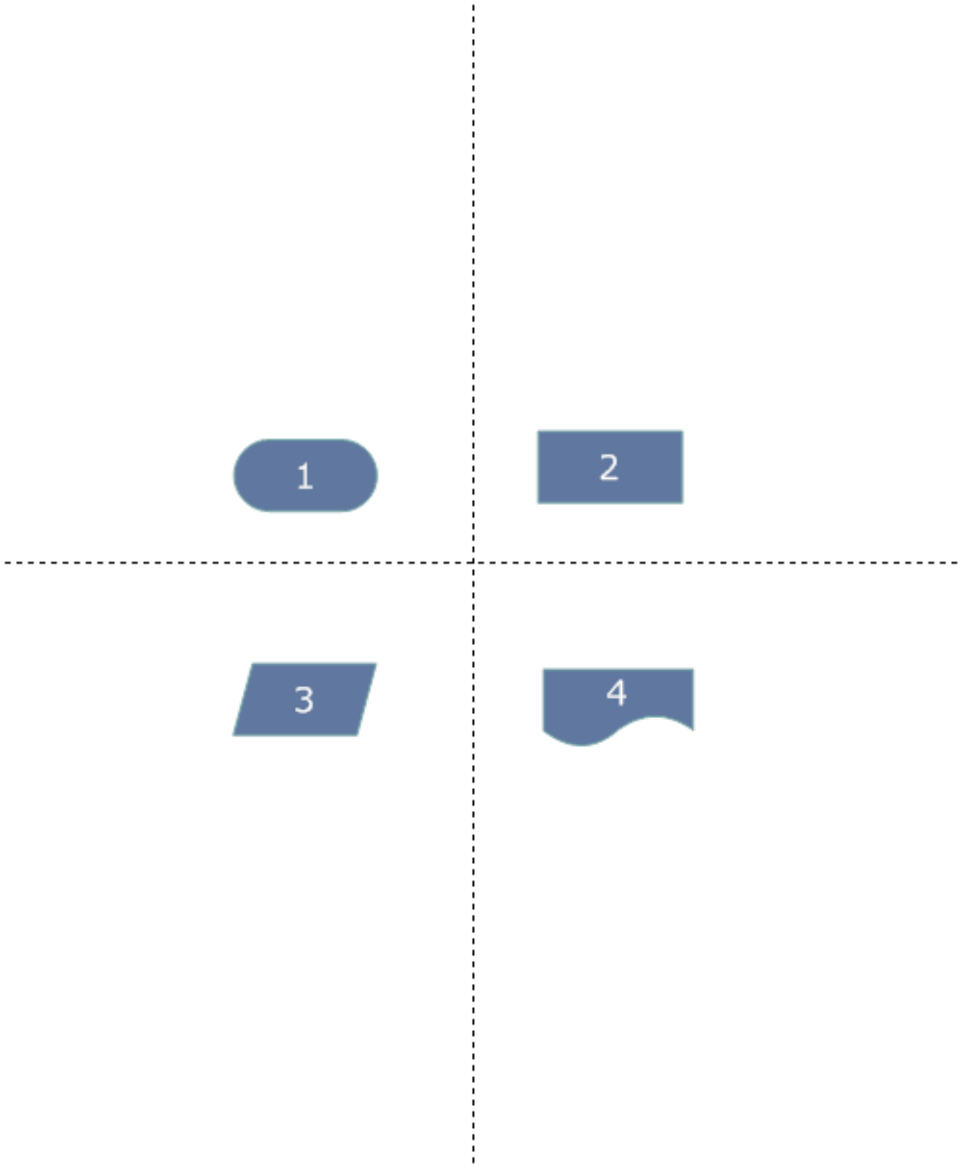
The Status Bar

Printing

 To print your document, click the **Smartdraw Button** at the top left of the program window, then click **Print**. This opens the Print Dialog where you can specify how to print your drawing.

Printing Multiple Page Drawings

Although SmartDraw has a very large potential Work Area, it prints only those pages that your drawing actually touches. If your drawing lies completely within one page, only that page is printed. If your drawing extends across a page boundary, it is printed on two or more pages.



Multiple Page Drawing

In the illustration above, four pages are printed, marked 1, 2, 3, and 4. The top-left page of the array of pages that contain the drawing is printed as page 1. The remaining pages are then printed, starting with the page to the right of page 1, and proceeding from top left to bottom right across each row.

When a page range is specified in the Print dialog, the page numbering follows this scheme. For example, to print the bottom right page only, in the example above, you would specify a range of page 4 through 4.

SmartDraw takes the page margin settings into account and shows the *printable* area of each page with dotted lines on your screen.

Printing on One Page

Even if your drawing takes up more than one page on the screen, you can still print it on one sheet of paper by checking the **Print on One Page** box inThe Print Dialog.

Printing Large Diagrams and Posters

By checking both the **Print on One Page** and **Scale Up to Fit Page** boxes in thePrint Dialog, you can print your drawing at nearly any size, if you have access to a large-format printer

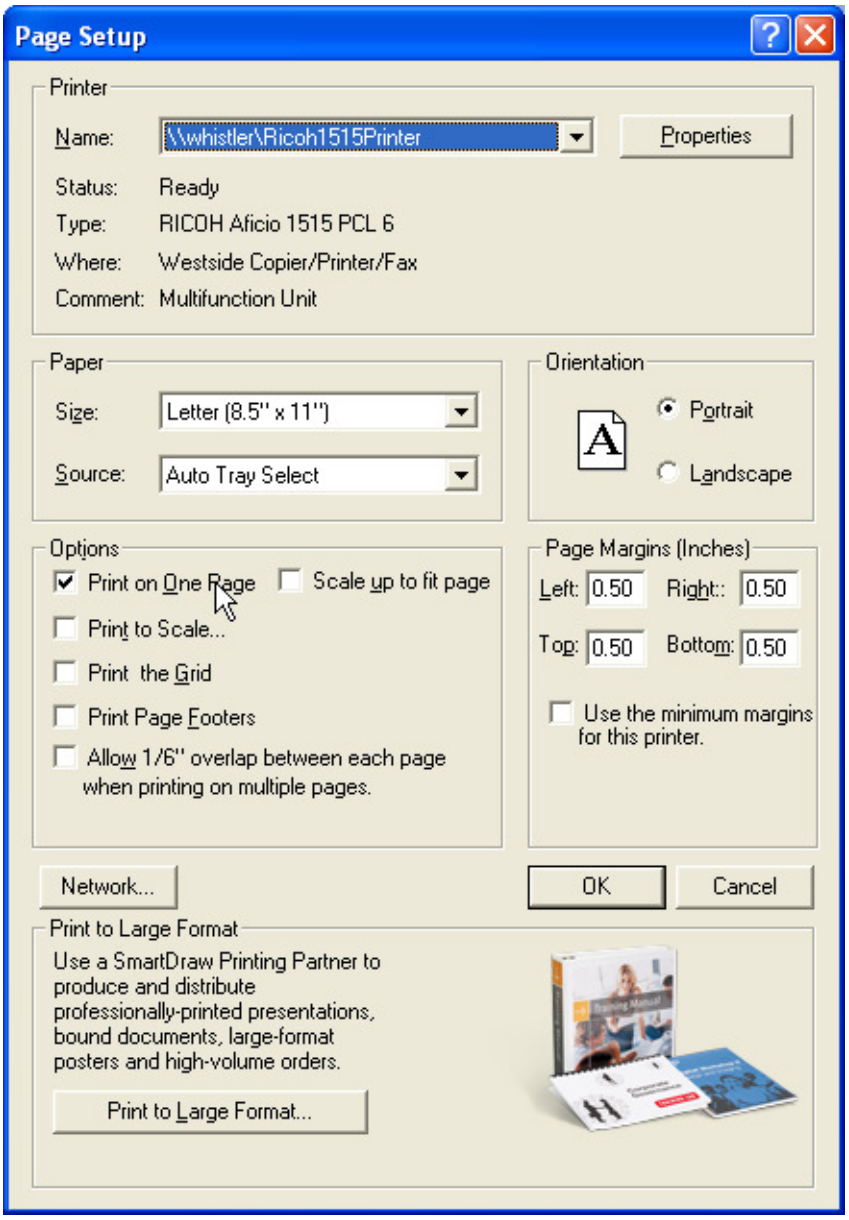
Page Setup

The **Define** command, on the **Margins** menu of the **Page** tab, opens the **Page Setup Dialog,** where you can specify the properties of your pages. Many of the settings are identical to those in thePrint Dialog.

Page Setup includes:

- Page orientation
- Paper size
- Printer
- Printer properties
- Printing Options
- Page Margins
- Print to Large Format

The Page Setup properties are **unique to each drawing**. If you change a printer property using this command it will affect only the current drawing. Changes will have no effect on any other program, any other drawing, or on the global printer settings.



The Page Setup Dialog

Printer Settings

The printer assigned to a particular drawing may be either the **Default** or a **Specific** printer. You select the **Name** of the printer using the drop-down list.

The **Default** printer is the one currently specified in the Windows **Control Panel**. If the printer assigned to a drawing is set to the default, its assigned printer changes to the new default each time you change the default printer in Windows, either by using the Control Panel or by moving the drawing to a different computer. New drawings are set to the default printer when they are created.

If you assign a **Specific** (non-default) printer to that drawing, then the next time you print that drawing, the same printer will be selected. If this printer is no longer available, you are prompted to select another.

See Setting the Page Margins

Overlap

Checking the checkbox marked **Allow 1\6" Overlap...** causes a small strip of each page to be printed again on the pages that surround it (on multiple page drawings). This makes it easier to paste together the pages of large drawings.

Options

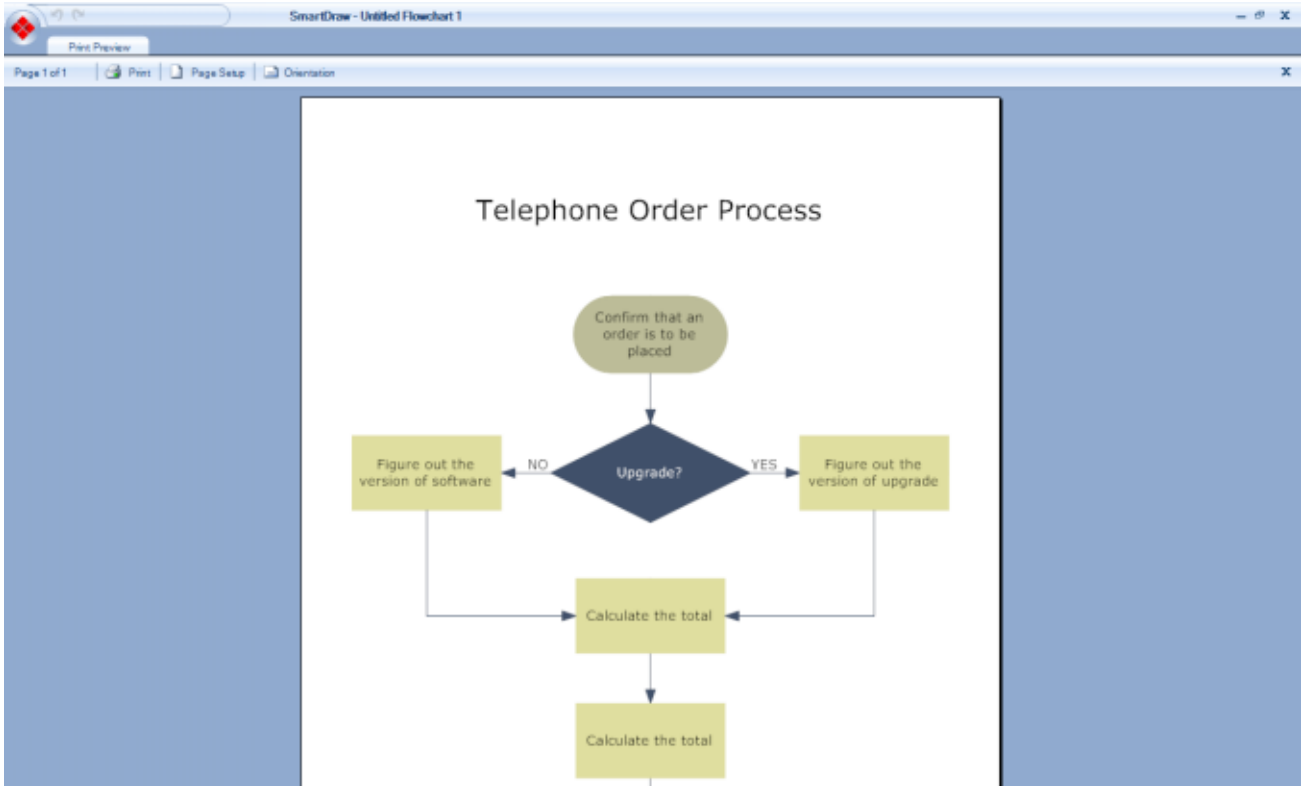
Selecting the checkboxes in the **Options** section allows you to define preferences for printing your drawing. For more information on printing your drawing and applying these options see The Print Dialog section.

Print Preview

 The **Print Preview** command on the **Document** group of the Main Toolbar displays a preview of how your document will look when printed.

Multiple Page Previews

If your drawing will print on more than one page you must **scroll down to see each additional page.** The page indicator at the top left of the preview window say "Page 1 of 2, " for example, to let you know which page you are viewing.



Print Preview Mode

The command buttons in the Preview Window are:

Print - Opens the Print Dialog to print the drawing.

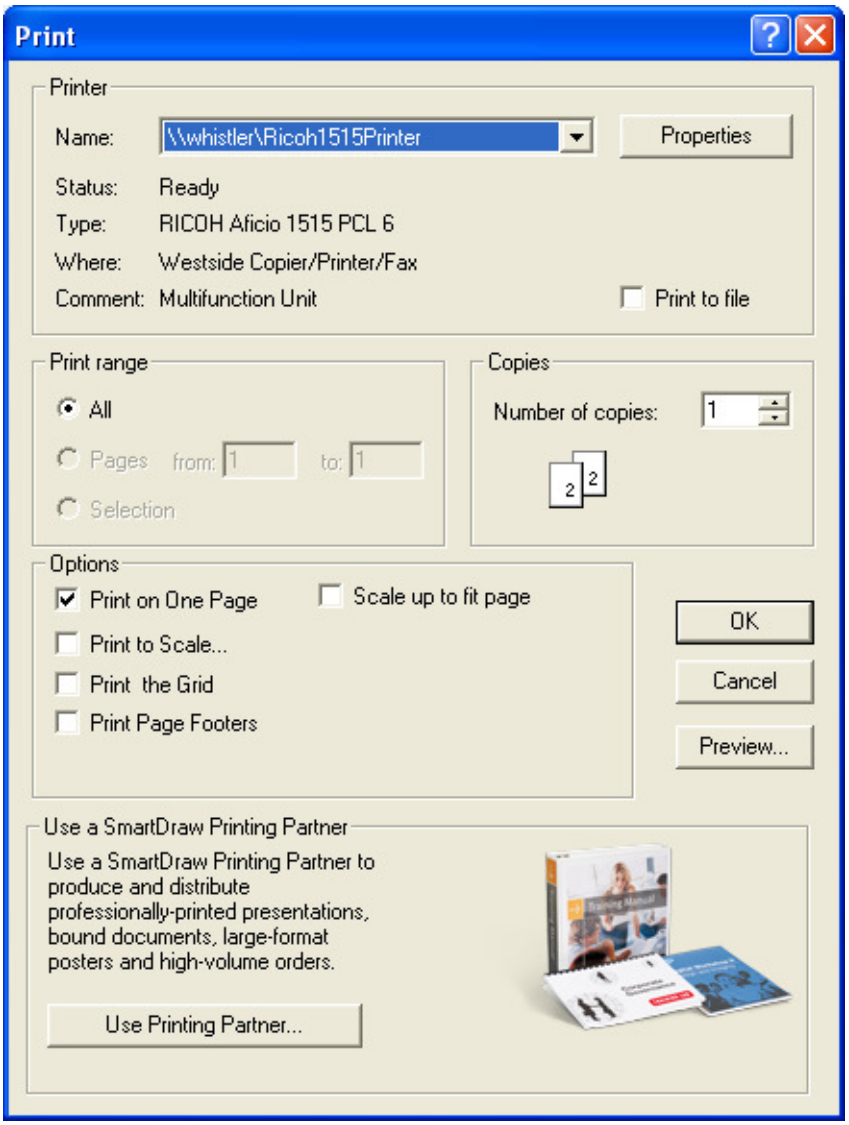
Page Setup - Opens the Page Setup dialog. You can use the Page Setup dialog to change the size and shape of your paper and immediately see the results in the Print Preview. You can also test the **Print on One Page** option and see the results on the preview.

Orientation - Switches the page orientation to Portrait or Landscape.

To leave the Print Preview mode, click the Close button (x) on the same bar as the command buttons.

The Print Dialog

Clicking **Print** under the **SmartDraw Button** of the Main Toolbar opens the **Print Dialog**, where you can specify the printing properties of your document and send it to the printer.



The Print Dialog

Selecting the Printer

The name of the currently selected printer appears in the Printer box at top left. You can switch to a different printer using the drop down list.

Selecting the Range of Pages to Print

All - Prints all pages that contain the drawing. Extra blank pages (if any) will not print.

Pages - Prints a *range* of pages specified by their page numbers.

Selection - Prints only the pages that contain *selected* objects.

Printing Multiple Copies

You can print multiple copies of your selected pages by entering the number in the **Copies** field.

Print on One Page

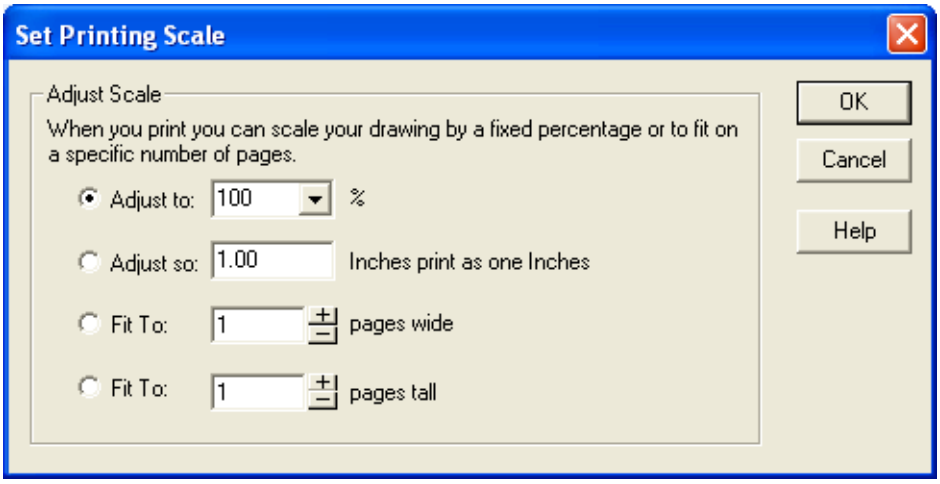
Checking this box causes the entire drawing to be scaled down and printed on a single page. This affects only the *printed* drawing, and will not change the view of the drawing on your screen or the size of the actual drawing.

Scale Up to Fit Page

Checking this box enlarges the drawing to fill the printable area of the page. If you have a large format printer, you can use this print poster size images.

Print to Scale

Checking this box allows you to specify a scale for printing your drawing. This is particularly useful for scaled drawings such as floor plans. Using this option opens the Set Printing Scale dialog:



The Set Printing Scale Dialog

You have the option to (a) scale your drawing by a percentage, (b) specify the scale in printed inches per drawing ruler-inch, or (c) fit the drawing to a fixed number of pages.

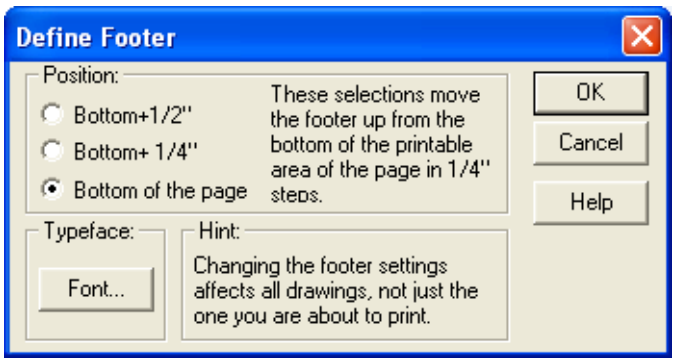
The scaling percentage can be a minimum of 1% and a maximum of 1000%.

Print Page Footers

Checking this box prints a footer showing the name of the drawing, the number of the page, and the current date and time at the bottom of each page.

Define Footer

This button only appears when the **Print Page Footer** box is checked. Pressing it opens the **Define Footer Dialog**.



The Define Footer Dialog

Position specifies how far above the bottom of the page to print the footer.

Font displays the standard Windows **Font Dialog**, where you can specify the style and size of the text.

Print the Grid

Checking this box causes the (normally invisible) Grid to print on the page with your drawing. On color printers, the grid will print in green.

Print to File

Checking this box causes the *printed image* of the drawing to be stored in a file on disk instead of being sent to the printer.

E-mailing a Drawing

You can e-mail a drawing directly from SmartDraw without having to leave the program.

Select **Email** from the **SmartDraw Button**.

Your default e-mail program will automatically open with the drawing attached.

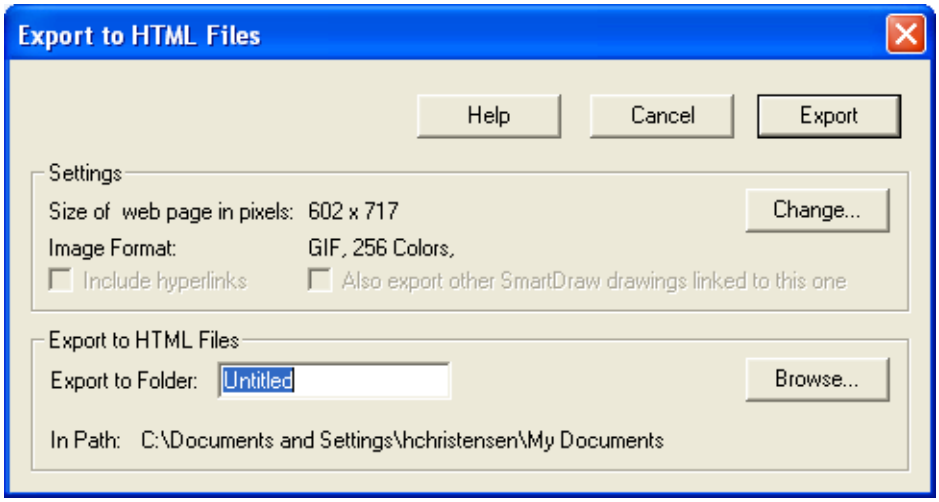
Publishing To The Web

Exporting to HTML Files

You can export your drawing to HTML files ready for web posting. Any hyperlinks in the drawing will remain active in the HTML files.

To export, choose **HTML File** from the **Publish** command under the **SmartDraw Button**.

This opens the **Export to HMTL Files** Dialog.



The Export to HTML Files Dialog

When SmartDraw exports to an HTML file it also includes a GIF, PNG or a JPG file with the same name followed by *_img*.

For example, if you export to **Flowchart.htm**, a bitmapped file called **Flowchart_img.gif** (or png or jpg) is also created. You must upload both files (using any FTP software of your choice) to your web server in order to view the exported image in a web browser. You should always upload all of the files that SmartDraw places in your selected export folder.

If you check the **Include Hyperlinks** box when exporting to HTML files, any hyperlinks you've created in your drawing are preserved, including links to non-html documents, files, and programs. You are responsible for making any necessary hyperlinked files available on your web site.

Exporting to a Bitmap File

An alternate method of publishing your SmartDraw document to the web (instead ofHTML files) is to export it as a web-compatible bitmap image (such as JPG) and then embed that image in an HTML file of your own creation.

You can export a bitmap file using the **Export** command under the **SmartDraw Button**. Select the type of file you would like to export to from the menu.

Most web browsers will display only GIF, PNG and JPG formats. When you export to a bitmap you are presented with the **The Export Bitmap Dialog** where you can set the parameters of your image.

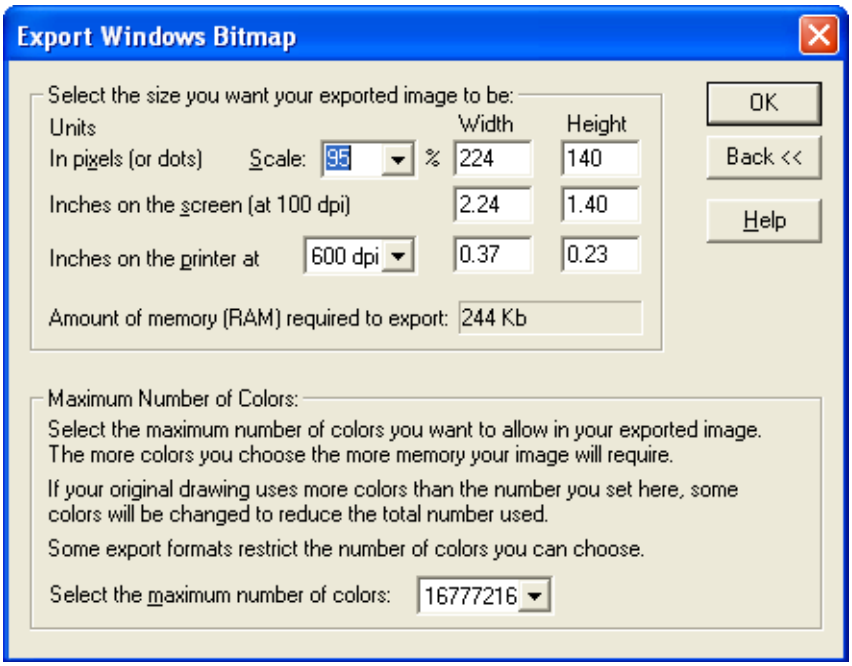
See The Export Bitmap Dialog

The Export Bitmap Dialog

SmartDraw can export many bitmapped file formats including BMP, TIFF, GIF, JPG, PNG, and others. All of these formats represent an image as a pattern of colored dots, called a bitmap.

The number of dots per inch is called its *resolution*. The number of different colors that each dot can represent is called its *color depth*. The greater the resolution and color depth of a bitmap, the better it looks, but the more memory and disk space it occupies.

When you prepare to save your exported image, you first name it in a dialog much like a Save dialog, then the **Export Bitmap Dialog** appears:



Export Bitmap Dialog

You can specify the width and height of the bitmap in pixels (dots), screen inches, or printer inches. Separately, you can specify the color depth, but your options there may be limited by the type of format you are exporting.

Since bitmaps don't scale well after they are created, you should export the image at the size you actually plan to use it.

For example, if you are exporting your drawing as a GIF for a web page, and you want the web image to be 400 dots (or pixels) on the screen, then enter 400 in the first row of the **Width** Column. The other width and height values will all change accordingly. The height changes because the drawing is always scaled **proportionally.**

You can specify the **Maximum Colors** from the drop-down list at the bottom. However, many image formats have specific color depths that you can't change. For example a GIF always has 256 colors.

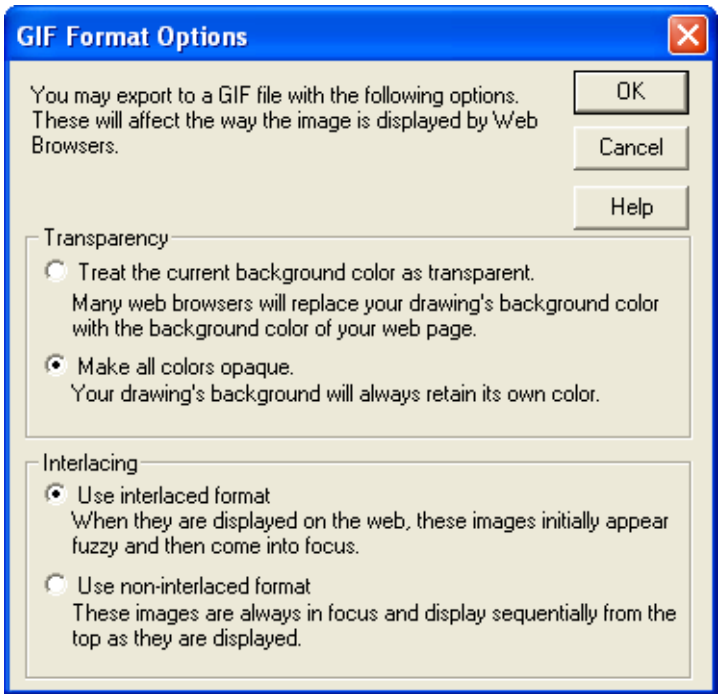
The dialog shows the memory (RAM) required for the exported image. If this number exceeds 32,000 most systems will not be able to export the bitmap. If you have trouble exporting large bitmaps, try shutting down other programs to free up additional memory, or reduce the resolution or color depth.

GIF Export Options

When exporting a GIF, you have the option to specify a background color that will become transparent when viewed with most web browsers. You can also choose

between interlaced and non-interlaced formats. Interlaced images display more quickly than non-interlaced, but take longer to come into focus.

To set these options, click the **Transparent** button at the bottom of the **Export GIF** dialog, to open the **GIF Format Options Dialog**.



GIF Format Options Dialog

Hyperlinking to Files and Web Pages


By using the **Hyperlink** command on the **Insert** tab, you can hyperlink objects in your SmartDraw drawing to:

Another SmartDraw drawing file

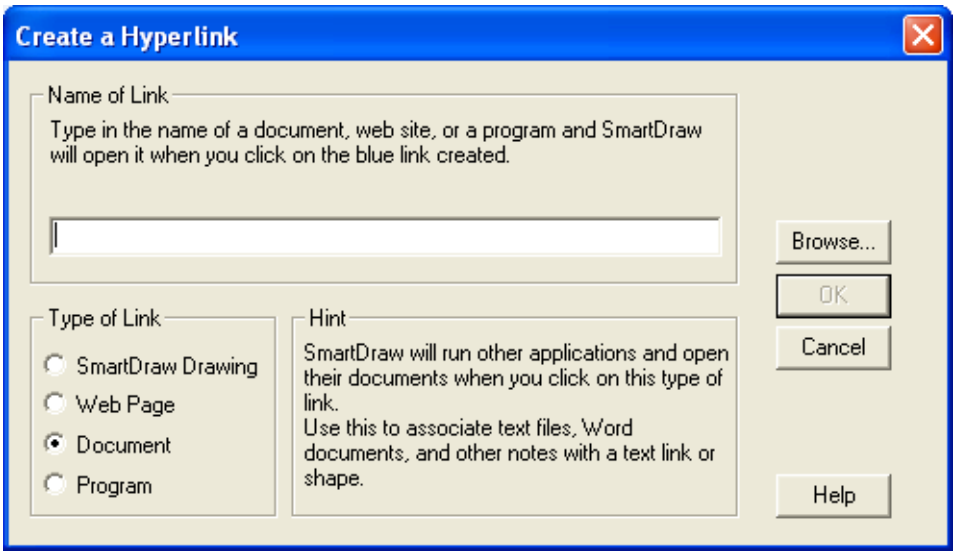
A web address (URL)

Another program's document (such as a Word document)

A program command line (to run a program)

To create a hyperlink, Select the text or object on the page that you want hyperlink and then choose **Hyperlink** from the **Insert** tab.

This opens the **Hyperlink Dialog.**



The Hyperlink Dialog

Specify the type of file or location you want to link to in **Type of Link**.

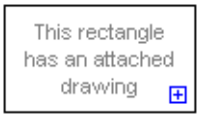
Enter the file name, web URL, or program command line in the box at the top. You can use the **Browse** button to search for a particular file on your computer.

The Appearance of Hyperlinks in Your Drawing

Hyperlinked text appears blue and underlined. However, this formatting will not show when you print the document or export to standard graphic formats (unless you use the Publish to Web function with hyperlinks preserved). Clicking on the blue text in the drawing opens the linked file or URL.

A Text Hyperlink

Hyperlinked Shapes, Lines and other Objects display a small blue box containing a plus sign (+).



The Hyperlink Symbol

Clicking on this symbol opens the linked file or URL.

You can **edit** or **remove** a hyperlink by selecting it and choosing **Hyperlink** from the **Insert** tab.

For more information on hyperlinking, see Using Hyperlinks.

Using Hyperlinks

Nested Drawings

You can use hyperlinking to create hierarchical or "nested" drawings that let you "drill down" for more detail.

For example, suppose you are creating a flowchart for a process that includes one very complex step. On your summary (or high-level) flowchart, you can represent the complex step by a single shape and then hyperlink the shape to a detailed flowchart illustrating the complex process.

Creating Web Sites

You can use hyperlinks between drawings to create a parallel set of interlinked web pages (essentially a complete web site). If you check both Include Hyperlinks and Also Export other SmartDraw drawings linked to this one in the Export to HTML Files dialog, SmartDraw will export all of the linked drawings as a set of interlinked web pages.

Web Site Mapping

The ability to hyperlink a symbol to a web page URL makes it easy to draw a flowchart representing the structure of a web site. Each symbol in the drawing can be linked to the web page it represents.

When you export the drawing to HTML, the hyperlinks stay active and you have a clickable map of the web site.

Hyperlinking Notes and Background Information

You can attach a page of notes to any object in your drawing by hyperlinking to a word-processing document. For example, in a network diagram, you could attach a document that shows the make, model, serial numbers, and history of a given piece of hardware, linked to its symbol in the drawing. Clicking on the symbol opens its document.

Limitations to Hyperlinking

Hyperlinks to programs and documents located on your computer are not retained when you export the drawing to HTML. These links are only present when viewing the drawing in the SmartDraw Program.

If you want to create hyperlinks to *documents* and *programs* in your HTML document, the document and\\or program needs to first be available on the website. Once the files are available, obtain the web page address

(http:\\\\www.) and use this address in combination with the "Web Page" hyperlink.

Using SmartDraw with MS Word, PowerPoint and Other Programs

Inserting Drawings into to Microsoft Word

The instructions below for transferring drawings into Microsoft **Word** also apply to **PowerPoint**, **Excel**, the other **MS Office** Suite programs, and many other software programs as well.

Copy and Paste

The easiest way to transfer SmartDraw drawings to **Microsoft Word** is to simply **copy** the drawing in SmartDraw (using the Copy command on the Edit tab) and then **paste** it into an open Word document.

Using the Export Commands in SmartDraw

Alternatively, you can export your SmartDraw drawing into Word or other Office programs using the buttons on the **Export** tab in SmartDraw. Exporting this way automatically opens the Office program and then inserts your SmartDraw drawing into a **new document** in that program.

The **Quick Export Buttons** at the top left of the SmartDraw program window provide a shortcut to exporting to Office, and to PDF (Adobe Acrobat) documents.

Using the Insert Command in Word

You need not actually run SmartDraw at all in order to insert a SmartDraw drawing into a Word document (or a PowerPoint slide, etc.) Word has an **Insert Object**

command on the **Text** group of its **Insert** tab. You can use this command to insert a SmartDraw drawing directly into your Word document.

When you use the Word Insert Command, Word automatically launches SmartDraw so that you can select, modify, or create the drawing your want to insert.

When you opt to insert a New Drawing, the last type you picked from the **Create New Document** screen in SmartDraw is created by default.

Drag and Drop

You can also *drag selected parts* of a drawing from SmartDraw into Word or other office programs. Unless you hold down the **Ctrl key** while you do this, the selection will be deleted from the drawing after it is transferred to Word. This conforms to the standard Windows conventions.

See also Understanding OLE (Object Linking and Embedding)

Understanding OLE (Object Linking and Embedding)

Because Word (and all Office Programs) is an OLE Client and SmartDraw is an OLE Server, Word stores *all* of the SmartDraw drawing information in its document when you paste, not just the picture you see. This is called **Embedding**. A copy of your SmartDraw drawing is *embedded* in the Word document.

If you double-click on the SmartDraw drawing in Word, it will re-open in SmartDraw and you can edit it.

An alternate way of transferring a SmartDraw drawing to Word is to Copy the drawing in SmartDraw and then paste an ***OLE Link*** using Word's **Paste Special** command. If you choose to paste a link, the *picture* you see is transferred to Word along with the name of the SmartDraw file it came from - but not the entire SmartDraw file itself.

If you double-click on the *linked* SmartDraw drawing in Word it opens the original SmartDraw file allowing you to edit it, just as with an embedded drawing. OLE Linking is useful if you want just *one* copy of your drawing to be shared between several documents. When you *embed* a drawing, changing the embedded copy does not change any other copy. When you paste an OLE *link*, changing the original drawing changes all the linked copies of that same drawing, even if they are in multiple documents.

See also Editing OLE Objects that have been Inserted into SmartDraw

Inserting Drawings Into PowerPoint, Excel, and Other Programs

Inserting SmartDraw drawings into Microsoft PowerPoint, Excel, and **any other** OLE Client programs, works exactly as described in the section about Microsoft Word.

Transferring Objects from Word, Excel, and other Programs to SmartDraw

In addition to being an OLE server, SmartDraw is also an **OLE Client**, (just like Word, PowerPoint, Excel, etc).

This means that when you paste images from other programs that are **OLE servers** (such as Word, PowerPoint, Excel, etc.) into SmartDraw, they become embedded or linked OLE objects that can be re-opened and edited by their parent programs.

For example, if you paste a graph from Excel into a SmartDraw drawing, both the image of the graph and the underlying Excel file structure are stored in the SmartDraw drawing. Double clicking on the graph in SmartDraw opens it again in Excel for editing.

On the SmartDraw page, the images you paste from Office behave just like SmartDraw library symbols. You can link lines to them, flip them, rotate them, and resize them.

OLE Objects in SmartDraw Libraries

If you add an OLE object from another program (such as Excel) to a SmartDraw **symbol library**, it retains its OLE nature and its connection to the parent program. This way you can create libraries of *live objects* that can be opened and edited in their parent programs while remaining stored in SmartDraw for future use.

OLE objects from the following programs can be inserted into SmartDraw using the **Insert** tab and its More menu in SmartDraw:

MS Word

MS Excel

MS PowerPoint

MS Graphs

MS Equations

MS WordArt

Prism Graphs

Insert Object - Allows you to select an OLE object to insert from any one of the countless other OLE server programs. See Inserting Objects Into SmartDraw with the Insert Command

See also Editing OLE Objects that have been Inserted into SmartDraw

Editing OLE Objects that have been Inserted into SmartDraw

When you have inserted an Object from an OLE server program (such as Microsoft Word, Excel, Graph, etc.) into your drawing, it remains a live OLE object linked to its source program.

You can re-open the object from within SmartDraw, so that any changes you make to it in the original program will be updated in your SmartDraw drawing.

To edit the OLE object, select it on your page, then click **Objects** on the **Design** tab and select **Open**.

This will open the object in its source program for editing. When you exit that program the changes will be updated in the SmartDraw drawing.

You can also open the object in its source program by **double-clicking** on it in SmartDraw.

Converting an Embedded OLE Object

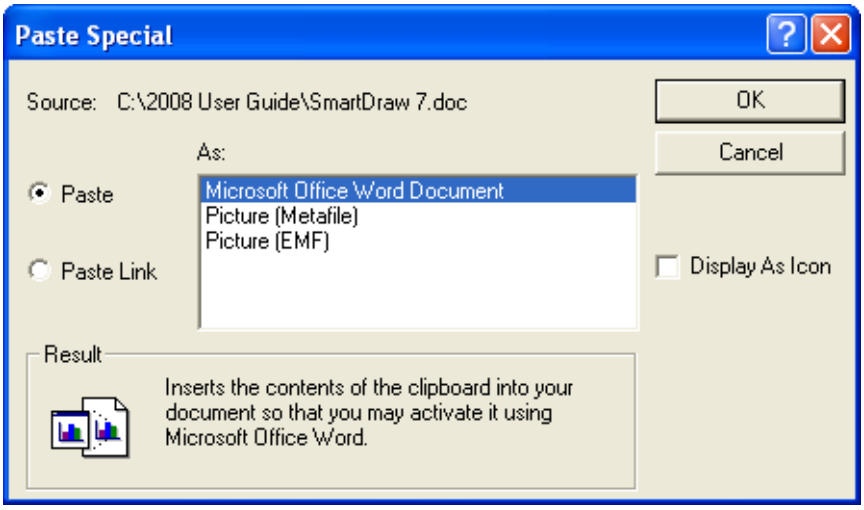
You can convert an embedded OLE object from another program to a different type of OLE object without having to re-insert it. Select the object on the page, then click **Objects** on the **Design** tab. In the submenu choose **Convert** and select the type of object you want to convert it to.

See also: Adding Office Objects to SmartDraw with Paste and Paste Special

Adding Office Objects to SmartDraw with Paste and Paste Special

In addition to using the Insert Commands buttons, you can also **Paste** an object from Microsoft Office, or other OLE Server programs, into SmartDraw. When you do this, SmartDraw makes its own copy of the imported object and stores it in the drawing as an embedded object.

On the other hand, if you paste using the **Paste Special** command under the **Paste** menu of the **Home** tab in SmartDraw, you can choose between several different ways of pasting your Office object into your drawing. Using this command displays the **Paste Special Dialog**.



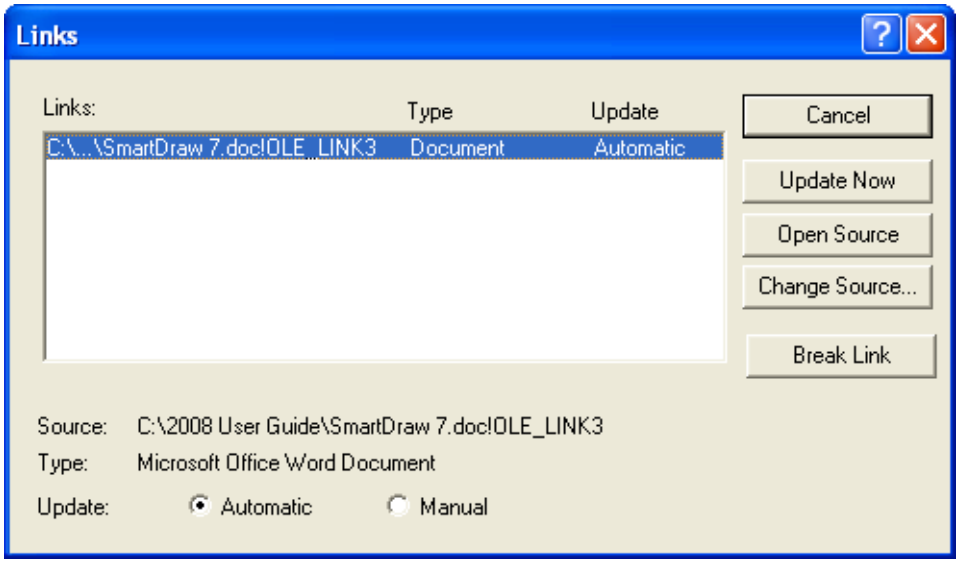
Paste Special Dialog

The dialog shows a list of formats under the **As** heading. When you select the first format at the top of the list (depending on the program you copied the object from) you may be offered the choice of **Paste** or **Paste Link**. Pasting a **Link** pastes the *picture* of the object, and the *name of the file* it came from, into your SmartDraw drawing. Whenever you change the contents of this linked Office program file, SmartDraw will automatically update the picture to reflect the changes.

Choosing the second item in the **As** list (Picture) only gives you the option to **Paste** (not to Paste Link). In this case, pasting the Office object into your drawing just transfers a *picture* into SmartDraw without the underlying link to the original file. If you paste just an image and then change the original Office file, you'll need to paste it into SmartDraw again if you want to update the image.

Managing OLE Object Links

When an OLE Linked object is selected on your page, the **Links** command under the More menu of the **Edit** tab opens the **Links Dialog**.



The Links Dialog

The list shows all of the linked OLE objects in your drawing. You can change the parameters of the item selected in the list by using the buttons on the right.

Update Now causes SmartDraw to get the latest image from the linked file.

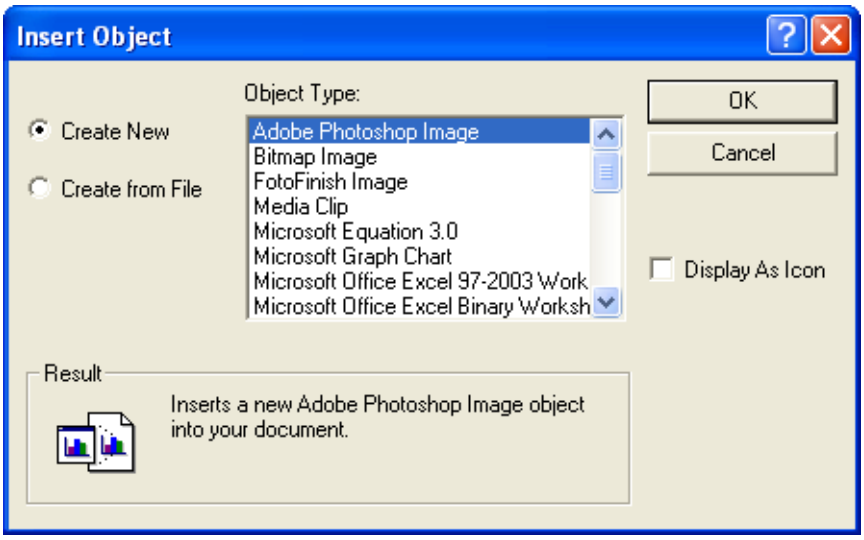
Open Source opens the file associated with the link.

Change Source lets your fix a link that has been broken because the original file has moved.

Break Link breaks the OLE link, making the object a simple picture object that no longer updates.

Inserting Objects into SmartDraw with the Insert Command

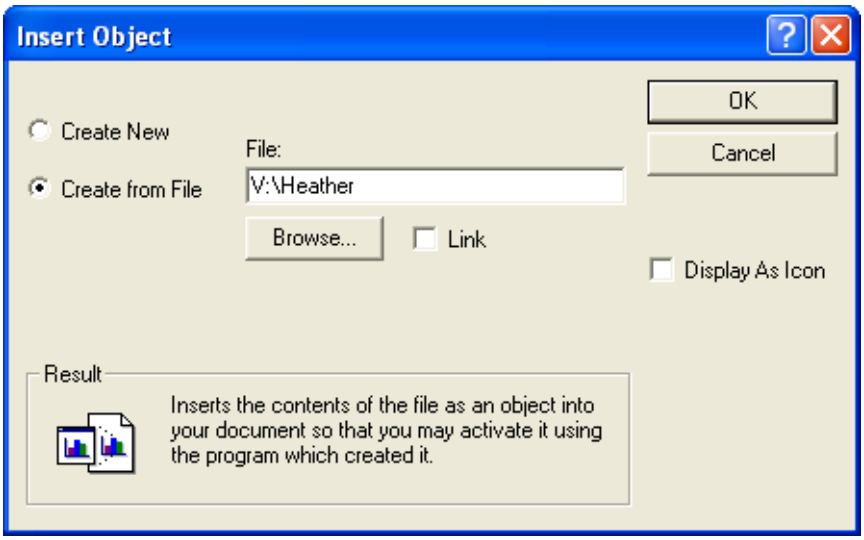
You can also add OLE objects to SmartDraw with the **Insert Object** command on the More menu of the **Insert** tab in SmartDraw. This opens **the Insert Object Dialog**.



Insert Object Dialog (Create New)

When the **Create New** button is selected, the list shows all of the different types of objects, from other programs, that can be inserted into your SmartDraw drawing. To create a new object (such as an Equation from the Microsoft Equation editor, for example), select one of the items in the list and click OK.

When the **Create from File** button is selected the dialog appears and shown below:



Insert Object Dialog (Create from File)

This allows you to pick an existing file on your system and insert it into your drawing as an embedded or linked object.

See also Understanding OLE (Object Linking and Embedding)

Inserting Pictures into Drawings

 You can insert a Picture or photo (such as a JPG, GIF, PNG or other bitmap image) into your drawing by choosing **Picture** on the **Insert** tab and browsing to locate the picture on your computer.

Unless you have already selected a place for the picture to go (such as a selected shape or a table cell) it will be placed near the upper left corner of your SmartDraw drawing by default. You can then drag it to any position you like.

You can also insert a picture into an existing **Picture Placeholder** on some of the ready-made SmartTemplates. The Placeholders are temporary images meant to be replaced by your real images. **Double click** on the placeholder to open the Browse dialog, and then browse to the picture the same way you would using the Insert command.

Double-clicking on any **existing** bitmap picture in a drawing also opens the Browse dialog, and any photo you choose replaces the one you clicked on. The same happens if you use the Picture command on the Insert tab while an existing picture is selected on the page.

You can **delete** a Picture, or a Picture Placeholder, from the page like any other object, by clicking on it to select it and pressing the delete key.

How Cut, Copy, and Paste Work in SmartDraw

You can exchange information between SmartDraw documents, and between SmartDraw and other programs, using the *clipboard* and the standard Edit commands: **Cut**, **Copy** and **Paste.**

The clipboard is a place that Windows temporarily stores text, pictures and other data that have been *copied* so that they can be transferred to another document or program with the *Paste* command.

Cut and Copy

The **Copy** command transfers the drawing, or a selected part of it, to the clipboard.

When nothing is selected, a representation of the whole drawing is copied to the clipboard (as a metafile). This drawing can then be pasted into other programs, including the Microsoft Office Suite (Word, Excel, etc.) and many others.

When one or more objects are **selected** on your page, the **Copy** command copies just those shapes and lines to the clipboard. They can be pasted back into a SmartDraw drawing, or pasted into another program.

Cut is a combination of **Clear** and **Copy**. It first copies any selected objects to the clipboard, and then deletes them from your page.

Paste

If the clipboard contains objects copied from SmartDraw, using **Paste** adds these to the current drawing. If the clipboard contains an image from another program, it is pasted into the drawing as an Image Object.

See also Understanding OLE (Object Linking and Embedding)Understanding OLE (Object Linking and Embedding)

See also Properties of Imported Image Objects

Properties of Imported Image Objects

When images from other programs are imported or pasted into SmartDraw they become **Image Objects**. These can be thought of as rectangular shapes, with an invisible border, and the image inside.

An image object can be moved, resized, or rotated like any other SmartDraw object. Normally when you resize them they maintain their proportions. However, if you hold the **Shift Key,** you can resize them to any proportion. Like other shapes, you can change an image object's sizing behavior using the **Shape Properties** Dialog Launcher on the **Design** tab.

When you try to type text into image objects, the text goes below the object (as a linked background text object), instead of inside.

Attempting to change the color or border of an image object may either add a border around its entire bounding rectangle, or change the colors in the image itself, depending on the **Change Colors** setting in the Edit Symbol dialog.

Some imported image objects can be decomposed into native SmartDraw objects using the **Ungroup** command on the **Arrange** group of the Main Toolbar.

File Formats that can be Imported

You can import images from other programs into SmartDraw using the **Picture** command on the **Insert** tab. This opens the **Import Dialog**, where you specify the type of file and its location.

SmartDraw can import the following **vector** formats:

Windows Metafile

Enhanced Metafile

Encapsulated Postscript (EPS)

AutoCAD (DXF)

CGM

HPGL

PDF

Adobe Illustrator

MicroGrafx Draw

DWG (AutoCAD)

CDR (Corel Draw)

SmartDraw can import the following **Bitmap** formats:

BMP

PC PaintBrush (PCX)

GIF

JPG

PNG

TIFF

When objects are imported they become Image Objects.

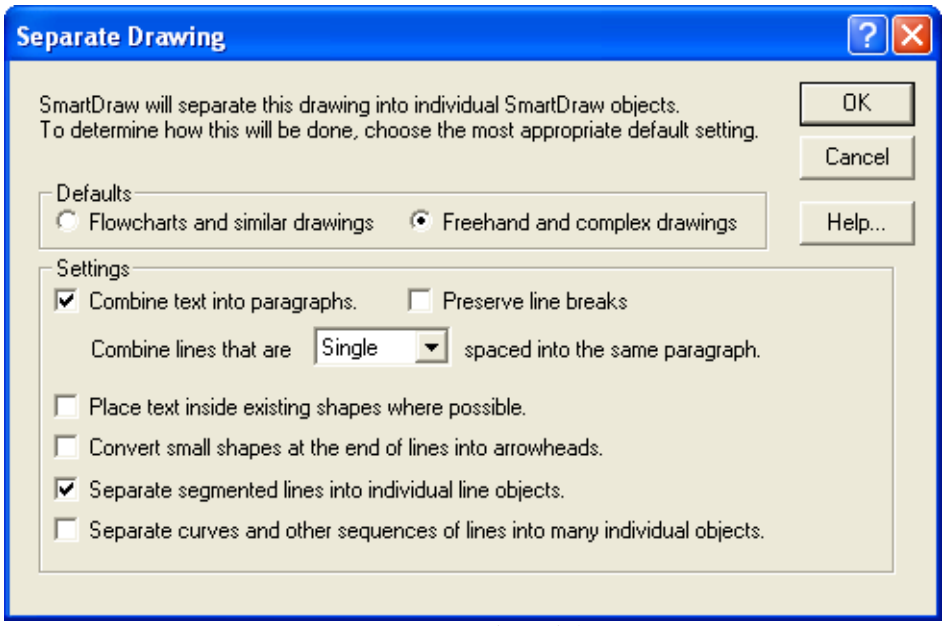
Ungrouping Imported Images

Imported vector Image Objects can be ungrouped into native SmartDraw objects. (Imported bitmap images cannot).

Vector objects are stored in EMF (Enhanced Metafile) format.

To ungroup a selected imported object, use the **Ungroup** command under **Group** on the **Design** tab. (If the **ungroup** command is gray, then your selected image is probably a bitmap that cannot be ungrouped.)

The **Ungroup** command opens the **Separate Drawing** dialog.



Separate Drawing Dialog

SmartDraw has to make many assumptions to convert metafile images into native SmartDraw objects, such as joining shapes to the end of lines as arrowheads, combining lines of text into paragraphs, placing text inside shapes, and joining line segments together into one segmented line. Since other drawing programs often use structures that SmartDraw does not, and vice versa, these assumptions are based on empirical rules and are not always perfect. If you have imported images that do not convert well, please contact SmartDraw Technical Support. We are always working to improve the conversion algorithms.

Defaults

Selecting **Flowcharts and similar drawings** automatically selects the best separation settings for decomposing imported flowcharts and similar images. The **Freehand and complex drawings** choice does the same for freehand drawings. The individual

settings in each case are explained below. You can specify the individual settings manually, if you like, regardless of which default is selected.

Combine text into paragraphs

Text from imported images consists of single line strings, where each string has one typeface. If this box is checked SmartDraw will attempt to combine these strings into one paragraph. The setting for single or double space indicates how much space SmartDraw should allow between lines before it terminates one text block and creates another.

Place text inside existing shapes

When this box is checked, the text blocks detected by SmartDraw's conversion process are placed inside any shapes that they appear to lie on top of. SmartDraw will try to detect and duplicate the alignment of the text inside the original shape.

Convert small shapes at the end of lines into arrowheads

With this box checked SmartDraw attempts to recognize arrowheads at the end of lines.

Separate segmented lines into individual line objects

With this box checked, SmartDraw will treat perpendicular lines that could be interpreted as a segmented line instead into separate lines.

Separate curves and other sequences of lines into many individual objects.

Freehand drawings often have many complex curves. These can be decomposed into hundreds (and sometimes thousands) of tiny SmartDraw lines, or left combined as a single curve. Checking this box forces their decomposition into many short straight lines. This will be appropriate only in rare cases.

Opening Files Created with Other Flowchart Programs

SmartDraw can intelligently disassemble files from other flowchart programs (such as Visio, Flowcharter, etc) and turn them into usable SmartDraw charts. (Note that this process cannot be perfect, since other programs often contain objects that SmartDraw does not, and vice versa).

To convert a flowchart to SmartDraw format, first save it from the original program in Windows Metafile (WMF) or Enhanced Metafile (EMF) format using the program's own export or save command. Then you can open the foreign file in SmartDraw using the **Import Object** Command on the **More** menu of the SmartDraw **Insert** tab.

When the file opens, the Separate Drawing dialog appears. The settings for conversion of flowcharts are already selected, but this gives you an opportunity to adjust them if your drawing does not convert well with the default settings.

Press OK and the drawing is converted to native SmartDraw shapes and lines. You can then make any needed adjustments or repairs by hand to complete the conversion process.

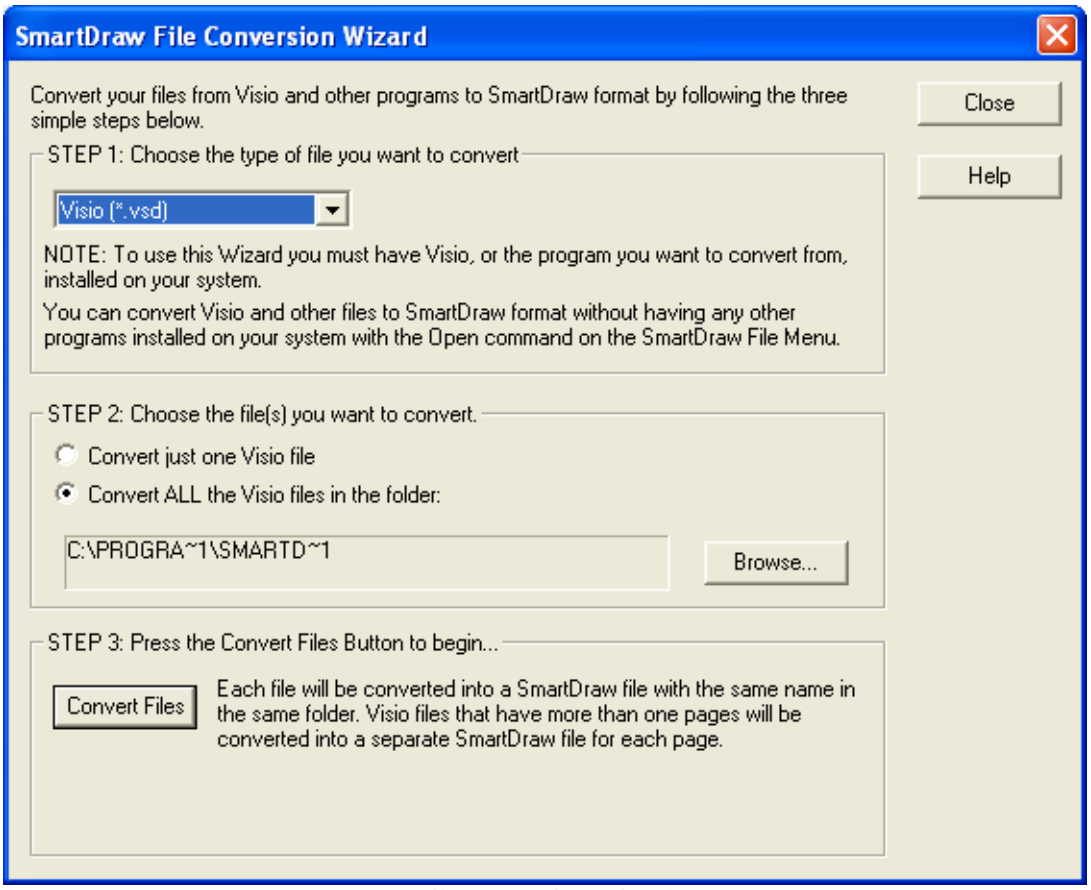
The File Conversion Wizard

The SmartDraw File Conversion Wizard is designed to make it easy for you to join the thousands of users who have switched from another competing product to SmartDraw.

It can be used to automatically convert dozens or even hundreds of files created with Visio, Flowcharter, and other programs into SmartDraw files all at once.

To convert files using this Wizard, the program you are converting *from* must be installed on your system, because the wizard uses that program as part of the conversion process.

First select the **File Conversion Wizard** from the **SmartDraw Button**.



File Conversion Wizard

Follow these steps to convert the files to SmartDraw format:

STEP 1

Use the drop-down list to select the type of file you want to convert (Visio, Flowcharter, etc). You can choose **Other** to convert a format that is not listed. For any format you choose, the source program must be present on your computer, and this program must be an OLE server (most major software programs are). The Wizard will warn you if you choose a format that does not meet these criteria.

STEP 2

Identify the file or files that you want to convert. You can convert all the files in a particular folder, or just one file. Before you choose to convert all the files in a folder you might want to convert one of them as a test.

STEP 3

Start the conversion process. As the Wizard converts your files you may see activity from the program that created the files and from SmartDraw itself. It typically takes between 10 and 60 seconds to convert each file. The converted files are stored in

the same folder as the original files with the same name, but with a SmartDraw SDR file extension. For example, if you have a Visio file:

C:\MyDrawings\flowchart.vsd

The Wizard will create a corresponding SmartDraw file:

C:\MyDrawings\flowchart.sdr

If the Visio file has multiple pages, the Wizard will create a SmartDraw file for each page:

C:\MyDrawings\flowchart-Page1.sdr

C:\MyDrawings\flowchart-Page2.sdr

...and so on

Fine Tuning the File Conversion

The Wizard extracts a Windows metafile from each of the files to be converted. Then it decomposes the metafile into native SmartDraw objects. By default, the settings for this decomposition are optimized for converting flowcharts and similar diagrams. You can adjust these settings by pressing the **Fine Tuning** button in the Wizard dialog to display the Separate Drawing dialog.

Exporting Drawings

SmartDraw can export drawings in several standard Windows file formats using the **Export** command under the **SmartDraw Button**

In addition to the files shown on the face of the tab, you can open the More menu by clicking the down arrow to reveal more formats.

SmartDraw can export the following **vector** formats:

Windows Metafile (WMF)

Enhanced Metafile (WMF)

Encapsulated Postscript (EPS)

AutoCAD (DXF)

CGM

HPGL

PDF

Adobe Illustrator

MicroGrafx Draw

SmartDraw can export the following **Bitmap** formats:

BMP

PC PaintBrush (PCX)

GIF

JPG

PNG

TIFF

Vector vs. Bitmap Files

Vector formats consist of mathmatically defined lines and curves that can be resized without degradation. They retain their sharpness when they are scaled or printed. SmartDraw's native objects are vector objects.

Bitmaps are patterns of dots. They consume large amounts of memory and often become jagged or unattractive when resized. Bitmaps are commonly used in web pages, but otherwise they are not the best format for transferring SmartDraw drawings to other programs.

Instead, vector formats like Windows Metafile format (the original 16-bit Windows metafile format) and the Enhanced Metafile format (32-bit revision of the WMF format) are almost universally shared among Windows programs and are a much better choice for sharing SmartDraw drawings.

Tablet PC

Introduction

When SmartDraw is installed on a Tablet PC or Tablet enabled computer, the Main Toolbar will have additional features to make better use of the Tablet PC stylus. The rest of the user interface appears the same as the rest of this manual. How you use those features, however, may be accomplished in different ways when using a Tablet PC stylus.

There are many varieties of Tablet enabled computers on the market. The type of stylus they use, however, does not vary all that much. For instance, some varieties support a button on the top of the stylus that act as an eraser. Others may have a button on the side to erase. Most are programmable in some way. Refer to your Tablet PC owner's manual to fully understand how your particular Tablet PC stylus works.

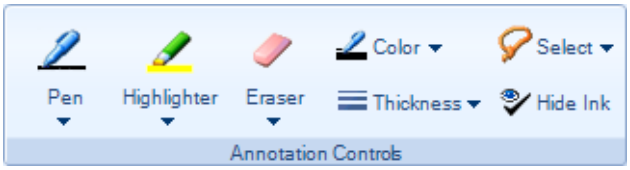
Throughout this section we will use new terminology to describe using a Tablet PC stylus. Instead of clicking (for a mouse), we will say "tap" to describe tapping a stylus on the screen where you want the click to occur. Instead of "click and drag", we will say "press and drag". Instead of "right-click", we will say "right-tap".

Tablet PC and the Main Toolbar

Interaction with the Main Toolbar remains unchanged. Using the Tablet Pen, you can select/use the main toolbar commands just like a mouse. You will notice a new tab called **Ink** that only appears if you have a Tablet enabled PC.

The Main Toolbar for a Tablet PC

The Ink Tab



The Ink tab deals entirely with annotations that are made on top of a drawing. These annotations are completely separate from the base drawing and can be turned on and off easily. They are ideal for instructing the author of the drawing how to make edits. They can also be used to add comments or highlight areas during presentations. The Ink group has the following choices:

Pen - Select a pen from the gallery and begin adding annotation to your document. You have a choice of black, blue or red ballpoint or felt tip pens.

Highlighter - Select a highlighter from the gallery and begin highlighting objects in your document. Unlike the pen, a highlighter is translucent so that objects behind are not hidden. You have a choice of yellow, turquoise or pink highlighters.

Eraser - Turns on the erase tool. Tap on previously added annotation to erase it from the document. You have a choice of small, medium or large erasers. In addition you can choose stroke, which erases a contiguous annotation with one tap.

Color - Choose a custom color from the gallery for your pen or highlighter.

Thickness - Select or change the thickness of your ink.

Select - Press and drag stylus on your document to draw a selection ring.

Hide Ink - Tap to hide your ink. Tap the **Ink Tab** to unhide your ink.

Normal Drawing with the Stylus

There are two types of drawings that you can perform using the Tablet PC stylus. First, is the normal type of drawing that you would do using a mouse. Second, is adding annotations on top of your drawing. These annotations are completely

separate from the base drawing and can be turned on and off, either on the screen and/or for the printed output.

For normal drawing, the stylus is used just like a mouse. There are a few new concepts to get used to, however. Instead of clicking a mouse, you tap the stylus on the screen where you want the click to occur. Instead of "click and drag", you position the stylus close to the screen until you see the icon change to a dragging icon then press and drag. Instead of "right-clicking", you press and hold the side bar on the stylus, then tap where you want the right-click to occur. Consult your Tablet PC manual for more stylus controls.

Annotations with the Stylus

When you click on the **Ink** tab, the mouse and/or stylus will no longer be able to change the base drawing on the page. Instead, you will be able to add notes, highlight areas, and draw freehand on top of the base drawing. These annotations can be turned on and off anytime without affecting the base drawing. This is very helpful, for instance, if you want to export your drawing without annotations yet retain the annotations for SmartDraw.

Tap **Hide Ink**, export your document, then tap the **Ink** tab to show the annotations once more. Note that if you do not hide the ink before you export, the annotations will become an integral part of the drawing in the exported file.

To print your document without annotations, simply uncheck the box in the Print dialog labeled **Print Tablet PC Ink**.

If your Tablet PC stylus is pressure-sensitive, the annotations you write will vary in thickness depending on the amount of pressure you exert.

The maximum thickness is determined by the **Thickness** selected in the **Ink** tab.

Annotations can be moved and/or resized by tapping the **Select** icon and drawing a selection ring around the annotation.

General Notes About Text Editing with the Stylus

There are several options to create text using a Tablet PC stylus. Tablet PCs normally come with many different ways to create text. Consult your Tablet PC user manual

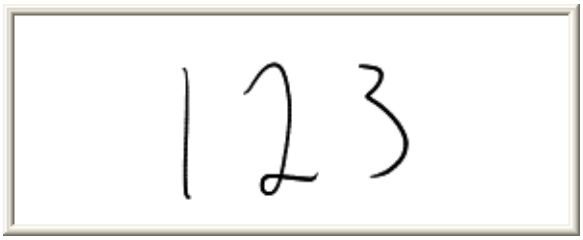
on its abilities for creating and editing text. SmartDraw supports the following abilities: If your Tablet PC comes with a keyboard, it can be used to create text. If your Tablet PC supports optical character recognition using the Tablet PC stylus, it can be used to create text. If your Tablet PC has an on-screen keyboard, it can be used to create text. If your Tablet PC supports voice recognition, it can be used to create text. Most Tablet PCs come with these features and throughout this section we will assume yours does as well.

Adding Text by Writing with the Stylus

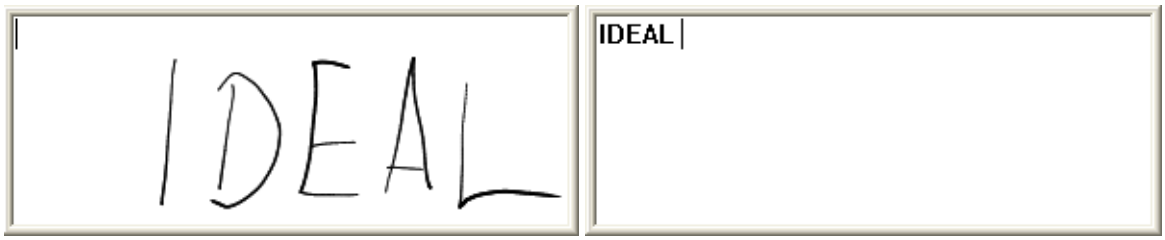
The Tablet PC stylus can be used to write or print words and characters using several different approaches. First, you can write or print directly inside a text box using the stylus. A couple of seconds after you stop writing, the Tablet PC will perform an Optical Character Recognition (OCR) on what was just written. The results will be entered into the text box. Additional writing will be appended to any text already in the text box.

For instance, if you add a text box by tapping on the **Text Tool** on the Home tab and tap the stylus on the page where you want the text to begin, you will get a blank text box that looks like:

Using the Tablet Pen, try printing "123" inside the text box as shown on the left below. After a couple of seconds, the drawing should disappear and 123 should be entered into the box as seen in the example on the right.

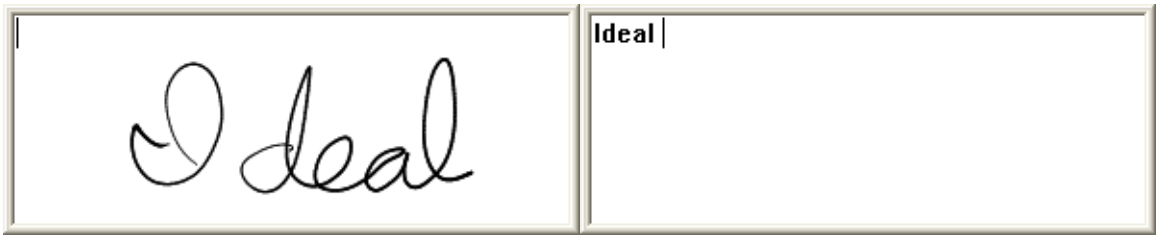


OCR usually works well when it comes to interpreting numbers from letters. For instance, if you print "IDEAL" like the example on the left below, the result should look like the example on the right.



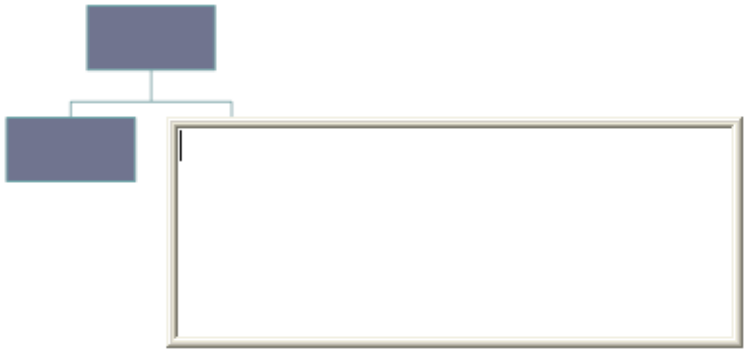
You can also print lower case letters as shown in the example on the left below to get the result shown on the right.

You can also write words as shown in the example on the left below to get the result shown on the right.



The same type of text box is used for any objects that have fields where text can be entered. When you tap outside of the text box, the large box will disappear and the text will appear inside the proper text field of the object.

For example, if you are creating an Org Chart and want to add text you would double-tap on one of the boxes. You might see something like the following:



If you have tapped **Hide Ink** on the Ink tab, you will have to tap the Ink tab again in order to add text in this manner.

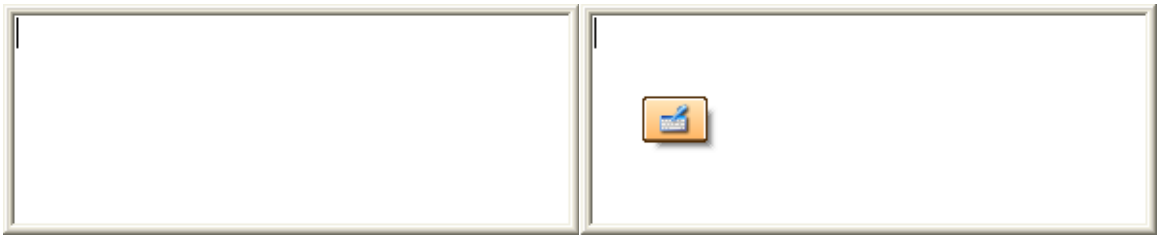
For this example, we will write "Marketing" using the stylus.

The writing will be automatically replaced with text like this:

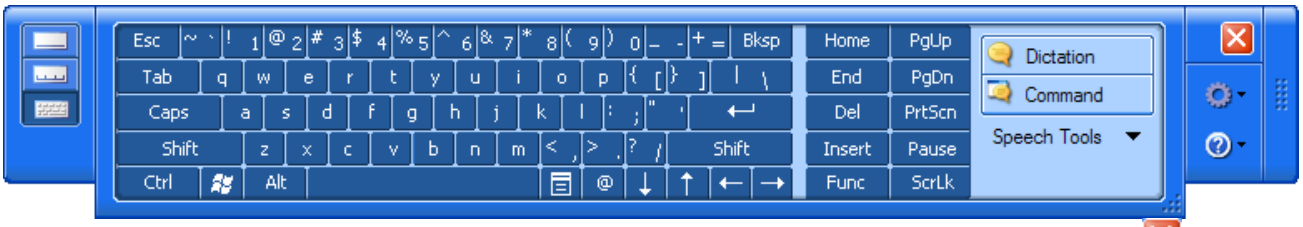
Tap outside the text box to see the text added to the field like this:

Adding Text Using the On-screen Keyboard

Add a text box by tapping on the **Text Tool** on the Home tab and tap the stylus on the page where you want the text to begin, you will get a blank text box like the one shown on the left below. When hovering the Tablet Pen over the text box, you should see an icon appear inside the text box like the one shown on the right.

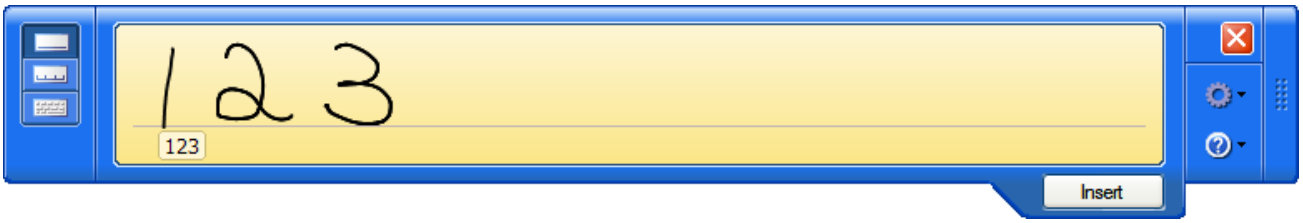


Tapping on the icon will bring up the on-screen keyboard. It may look something like the following:



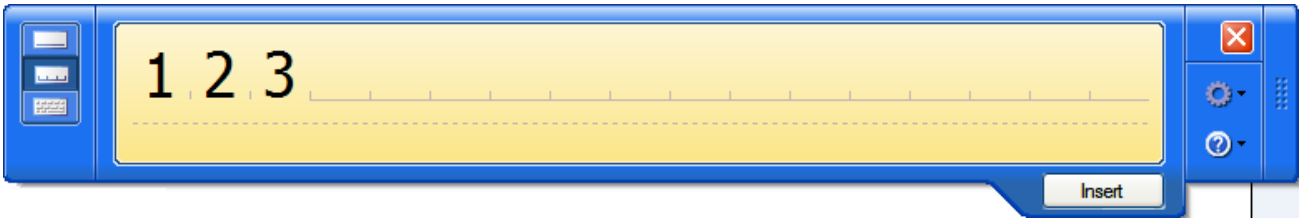
Using the stylus, you can tap on the keyboard to enter/edit text, then tap  to close the on-screen keyboard.

The left side of the on-screen keyboard has buttons to change the keyboard into two different styles of writing input. The first one looks like the following:

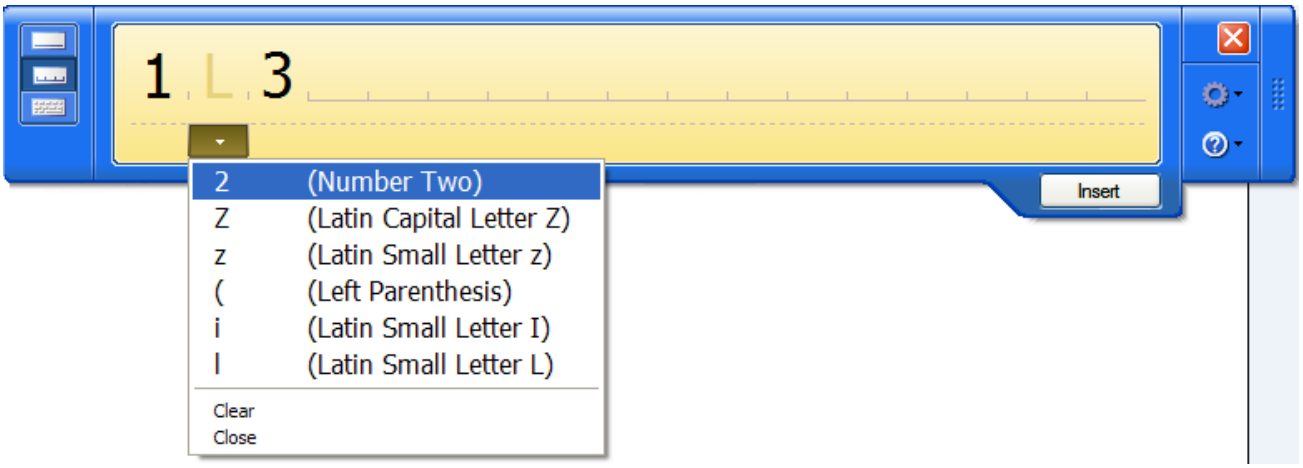


As shown in the picture above, as you write characters using the stylus, a preview of the text will show up just under the line. If the interpretation is correct you tap the **Insert** button to insert the text into the box.

The second style of writing input looks like the following:

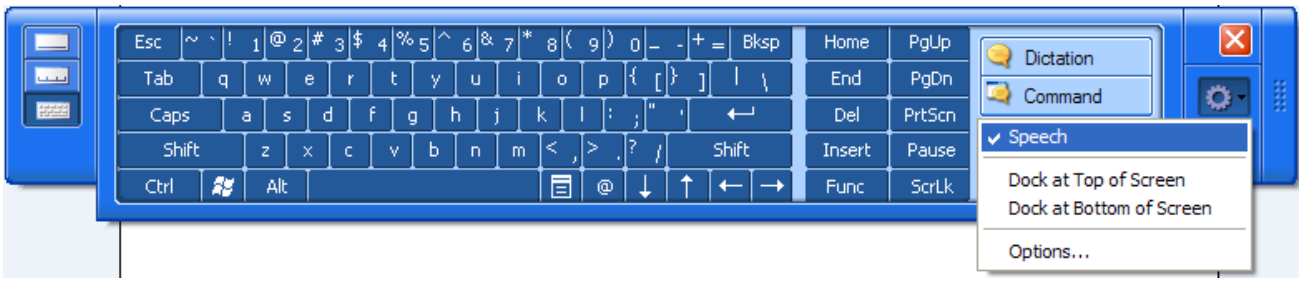


It has sections on the line so you can be more precise for individual characters and spacing. It also has the additional capability of changing a single character if the OCR program makes a mistake. For instance, if you write 123 but the computer thinks you wrote 1L3, then you can change the L to a 2 like this:



Adding Text Using Speech Recognition

Using speech recognition usually requires some setup on your Tablet PC before attempting to use it. Access the **Speech** setup in **the Control Panel** to adjust the microphone and train your speech for recognition. Once the computer is trained for your speech, you can activate the speech recognition from the on-screen keyboard by tapping the **Tools and Options** icon.



By checking ✔ Speech, you can select Dictation for saying text or Command for saying commands, such as **Tab**, **Enter**, **Backspace**, **Delete**.

Customizing SmartDraw

Creating Custom SmartTemplates

A SmartTemplate is a "starting point" for making a particular kind of drawing. The built-in SmartTemplates appear in the Document Browser. You can create and save your own custom **S**martTemplates that will appear in the Document Browser under My Templates.

When you Create a New Document by opening a template, SmartDraw makes a **copy** of the template for you to work with. The original template remains untouched and available for future use.

To create a SmartTemplate, save your drawing using the **Save As Template** command under the **SmartDraw Button**. Instead of SDR, a template has the file extension SDT.

The **Save as Template** dialog prompts you to name your template. You can also add **keywords**, separated by commas, that you think may be useful later when searching for the template.

You can create a sub-category inside **My Templates** by selecting the **Create New Category** button.

Clicking **OK** saves your drawing as a new template, and, if appropriate, creates the new category. This is reflected immediately in the Document Browser.

Designing SmartTemplates

Your custom SmartTemplate does more than just save a drawing as a starting point for future use. It also saves all the **default settings** of that particular document.

Those default settings include:

Snap-to-grid alignment

Line- and Shape-linking settings

The Design Theme

Line and border thickness

Font

Rulers and their scale

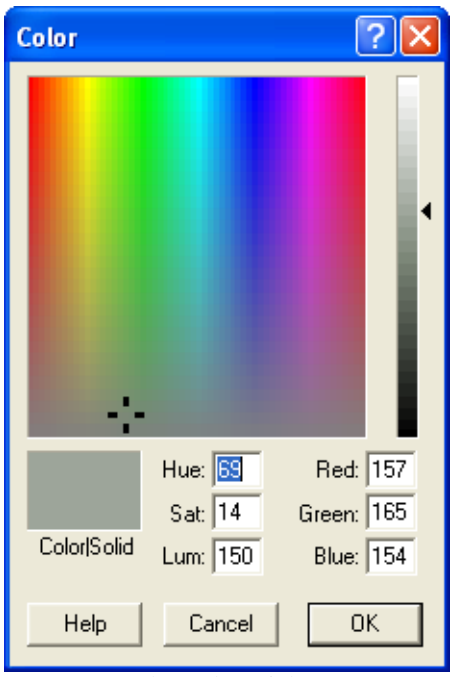
Page orientation and size

Zoom level

It's important to create your template by starting with the right **type** of drawing that you want to create with it in the future, so that those saved settings are appropriate. For example, if you want to use the custom template to create Org Charts, start with an Org Chart SmartTemplate in the first place to create it.

Defining Your Own Menu Colors

If you choose **More Fill Colors** from any SmartDraw color menu, you'll see the **Color Dialog,** which allows you to choose from any of the 16 million possible Windows colors.



The Color Dialog

You can define a custom color using the slider control to set the brightness and dragging the crosshair in the window to select the hue. Your currently defined color shows in the **Color|Solid** box.

Alternatively, you can enter an explicit RGB or HSL value for the color in the designated fields.

Once you have specified your custom color, click OK to apply it to the selected object in your drawing.

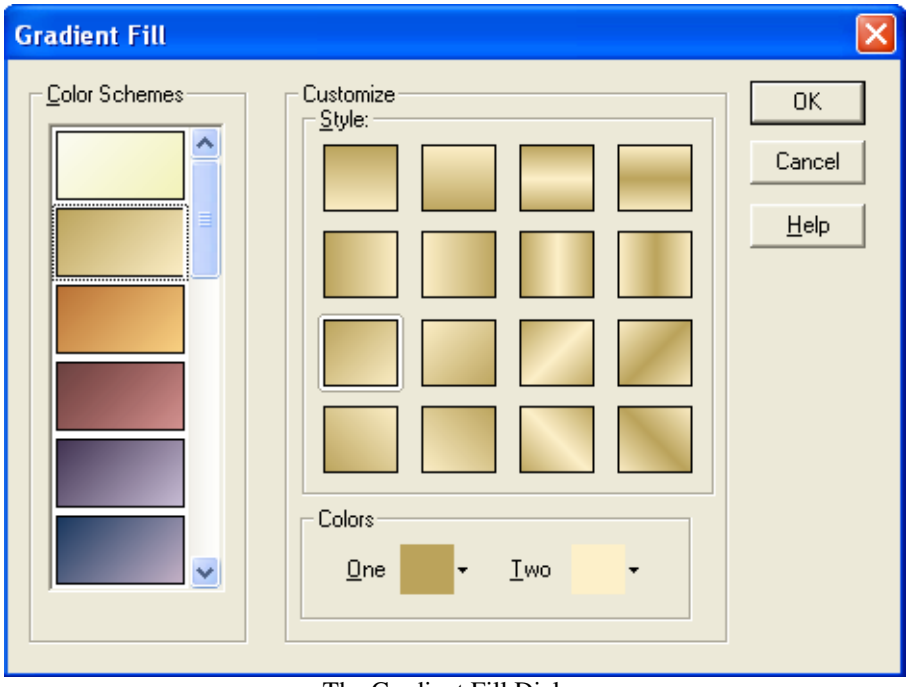
After you define a new color, it appears in the **Recent Colors** section in the color menus, so that you can quickly access to it for future use.

Defining Your Own Gradient Fills

You can create your own custom gradient fill colors.

On the **Home** tab, click **Fill**, then **Gradient**, then **More Gradients**.

This opens the **Gradient Fill Dialog** where you can choose from one of the existing Color Schemes or create your own and save it for future use.



The Gradient Fill Dialog

A gradient fill is defined by two colors and the direction that the colors change. The two colors are selected using the color controls labeled **One** and **Two** at the bottom of the dialog. The direction of the fill is shown on the 16 buttons above the Colors

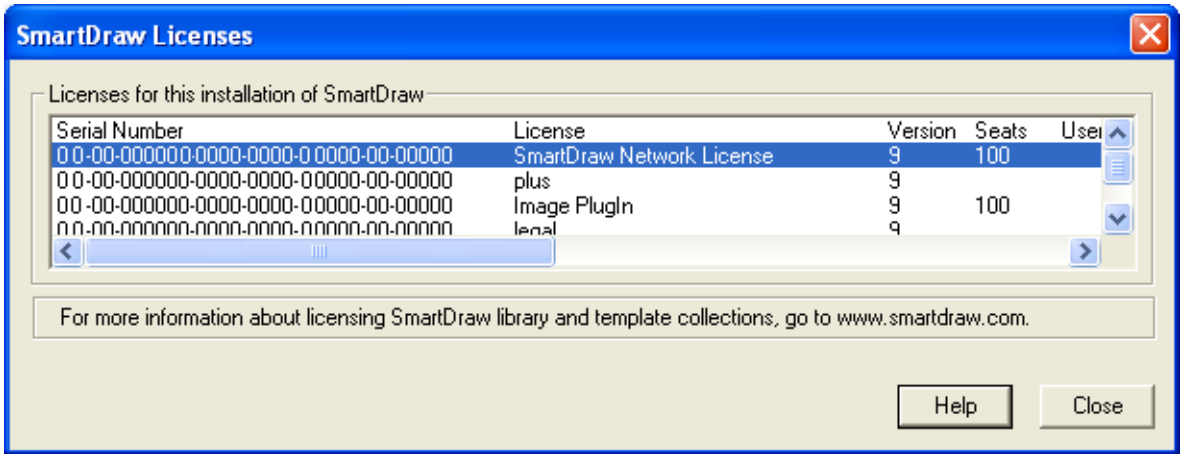
box. Clicking one of the buttons selects this fill direction. Clicking OK applies the gradient fill to the currently selected object(s).

If you have an object selected for which you have previously defined a custom gradient fill, when you open the gradient menu again, the color #1 of your custom fill will be used to create the **Light** and **Dark Variations**.

SmartDraw Licenses

SmartDraw Licenses

SmartDraw will not run without a license. The license is created when the program is installed with a valid serial number. You can inspect the licenses installed on your system by selecting the **License** command on the **Help** tab.



SmartDraw Licenses Dialog

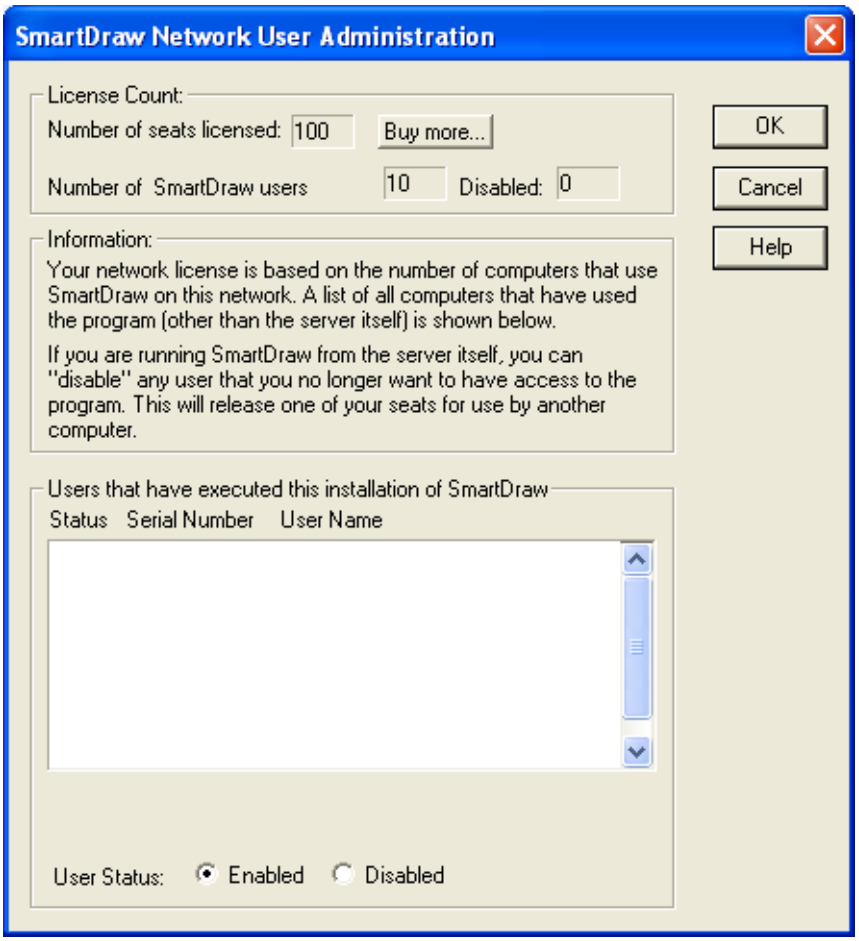
The **SmartDraw Licenses** dialog displays a list of all the SmartDraw licenses installed on your system.

Workgroup Licenses

The SmartDraw workgroup license allows ten or more computers to access SmartDraw on a network. For example, a 10-Seat license permits 10 different computers, (other than the server itself) to access the program.

SmartDraw records the identity of each computer that runs the program, and it will allow no more computers to access it after the licensed number has been reached.

The list of computers that have used SmartDraw is maintained on the **server** and can be inspected and edited there by selecting the **Licenses** command on the Help tab, to display the **Network Administration Dialog**.



TheSmartDraw Network User Administration Dialog

The number of seats supported by all network licenses installed is shown at the top of the dialog, along with the number of users (computers) that have run this networked copy of SmartDraw.

SmartDraw counts the number of computers that have accessed it by recording the serial numbers of their hard disks.

If a user has run SmartDraw accidentally or no longer needs access, you can disable that account by clicking on the user's name and setting the status to **Disabled** using the buttons at the bottom. This frees a license for use by another computer. You can also use this technique to disable old hard disk serial numbers when computers are replaced or upgraded with new drives.

As a security measure, these changes can only be made while logged on to the server itself.

Adding Additional Network Licenses

You can add licenses to an existing network installation by purchasing more online at SmartDraw.com, or by contacting SmartDraw sales at 1-800-817-4238.

When you purchase additional licenses, running the installation program on the network server automatically adds the new licenses and increases the total available. For example, if you purchase two 10-seat licenses and install each in the same program folder, the single shared copy of SmartDraw will permit 20 seats.

Technical Support and Troubleshooting

SmartDraw Tech Support Knowledge Base

For instant, 24-hour information about the most common user questions, visit the SmartDraw Knowledge Base at:
http://www.smartdraw.com/support/knowledgebase/index.aspx

How to Get Technical Support

Technical support is available to all SmartDraw users - including trial users.

 To access technical support from the SmartDraw program click the **Tech Support** button on the **Help** tab.

To contact support on the web go to:
http://www.smartdraw.com/support/contact.htm

Other Ways to Get Technical Support

By e-mail to: **support@smartdraw.com**

Call **(858) 225-3300** between 8 AM and 5 PM USA Pacific time.

When reporting a problem, please include the following information:

1) Your system configuration (version of Windows, printer, display type etc.)

2) A description of **how to reproduce** the problem.

3) A sample file that exhibits the problem (if possible).

Downloading the Latest Version

 We frequently offer free updates that include bug fixes and new features. To check for updates click the **Updates** button on the **Help** tab.

Or visit the SmartDraw support web page and click the link that says Free Updates.

http://www.smartdraw.com/support/updates.htm

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How to Order SmartDraw

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Activation

Order Online

Order by Phone

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858-549-2830

If sending a check, please mail the check and order form to:

SmartDraw.com

9909 Mira Mesa Blvd

San Diego, CA 92131

USA

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Limitation of Liability. To the fullest extent permitted by applicable law, under no circumstances shall SmartDraw.com be liable to you, or anyone claiming under or through you, for any indirect, incidental, special or consequential damages, including, but not limited to, damages for loss of profits, use, data or other intangibles, even if SmartDraw.com has been advised of the possibility of such damages, that result from the use, or inability to use, SmartDrawNet or any products or services at SmartDrawNet, from any changes to SmartDrawNet or any products or services at SmartDrawNet, from information, data or other materials available on SmartDrawNet, or from alteration of, or any access to, your transmissions, data, or information regarding your activities at SmartDrawNet or any Image Site. Some jurisdictions do not allow the limitation or exclusion of incidental, consequential or other types of damages, so some of the above limitations may not apply to you.

Indemnity. You agree to indemnify, defend and hold harmless SmartDraw.com and its officers, directors, employees, agents, licensors, suppliers and third-party information providers, from and against any and all losses, claims, proceedings, judgments, orders, expenses, damages and costs (including reasonable attorneys' fees and costs) resulting from or relating to: (a) any violation of your obligations, (b) the falsity or alleged falsity of any of your representations, or (c) any activity related to your account (including but not limited to any negligent or wrongful conduct) by you or any other person accessing the services using your account.

General.

Assignment. You may not assign or delegate any of your rights or obligations under this Agreement without the prior written consent of SmartDraw.com.

Notices. All notices to you may be sent to your e-mail address, and\\or street address, and\\or any other location for which SmartDraw.com has contact

information for you. All notices to SmartDraw.com shall be in writing and shall be forwarded by registered or certified mail or by overnight express courier requiring signature of the recipient to complete delivery, and sent to SmartDraw.com at the following address:

SmartDraw.com
9909 Mira Mesa Blvd.
San Diego, CA 92131
Phone: 800-768-3729 (toll-free)
Phone: 858-225-3300
Fax: 858-225-3390
E-mail: mail@smartdraw.com

Notices sent by registered or certified mail shall be deemed delivered seven (7) business days after mailing; notices sent by express courier shall be deemed delivered the next business day after they are given to the courier by the notifying party; notices sent to you by e-mail shall be deemed delivered within one (1) hour after they are sent by SmartDraw.com.

G***overning law.*** All matters relating to this Agreement will be governed by the laws of the State of California, U.S.A., without regard to California's choice-of-law rules. Exclusive jurisdiction and proper venue for all proceedings relating to this Agreement shall be in courts and other fora located in the State of California, U.S.A., and you hereby consents to such jurisdiction and venue.

Waiver. The failure of either SmartDraw.com or you to insist upon strict performance of any provision of this Agreement shall in no way constitute a waiver of future violations of the same or any other provision.

Severability. If any part, term or provision of this Agreement shall be held illegal, unenforceable or in conflict with any law of a federal, state or local government having jurisdiction over this Agreement, the validity of the remaining portions or provisions shall not be affected thereby.

Force majeure. No party shall be in default if failure to perform any obligation hereunder is caused solely by supervening conditions beyond that party's control, including acts of God, civil commotion, strikes, labor disputes or governmental demands or requirements.

Entire Agreement. You acknowledge that you have read this Agreement, understand it, and agree to be bound by your terms. You further agree that this Agreement is the complete and exclusive statement of agreement and supersedes all proposals, oral or written, understandings, representations, conditions, warranties, covenants, purchase orders and all other communications with Smartdraw.com relating to this Agreement. No additional terms, whether consistent or inconsistent with those contained in this Agreement, shall be binding on either party absent mutual and prior specific written consent.

Survival. All provisions of this Agreement relating to post termination actions and indemnities, and your obligation to pay all amounts due for services rendered by SmartDraw.com, shall survive any termination or expiration of this Agreement.

Headings. The headings in this Agreement are intended for convenience of reference and shall not affect its interpretation.

No Third Party Beneficiaries. There shall be no third party beneficiaries of any of SmartDraw.com's undertakings, representations or warranties in this Agreement.