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Daniel Hoffmann

Vice President of Marketing, SmartDraw

Doug Lowe Author of PowerPoint 2007 For Dummies

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by Daniel Hoffmann and Doug Lowe



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About the Authors

Daniel Hoffmann is a software industry veteran and entrepreneur with more than 20 years of experience in the design, development, and marketing of innovative and industry leading products. He currently serves as the Vice President of Marketing at SmartDraw.com. Prior to SmartDraw, Dan held various positions at Microsoft (including original member of the PowerPoint for Windows and Word for Windows 95 teams), HP, and was CEO of Namezero.com. He is also the holder of several patents in software and Internet technology.

Doug Lowe has been writing computer books since 1981, including nearly 40 *For Dummies* books, among them *PowerPoint 2007 For Dummies* and *Word 2007 All-in-One Desk Reference For Dummies*. He lives in sunny Fresno, California, where the motto is "Fres-YES!," (unfortunately, that's true) with his wife, the youngest of his three daughters, and a couple of dogs (a goofy-looking six-month-old Shar-Pei/Black Lab mix named Lucy and a yellow lab named Odie). He's one of those obsessive-compulsive decorating nuts who creates computer-controlled Halloween decorations that rival Disney's Haunted Mansion.

Dedications

Daniel Hoffmann: This book is dedicated to my three true loves, Susanne, Ashley, and Roxy, and to my family and friends who have always been there for me and given me more support than I could ever imagine.

Doug Lowe: To Debbie.

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Some of the people who helped bring this book to market include the following:

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Project Editor: Rebecca Senninger

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Introduction

Welcome to *SmartDraw For Dummies*, the book written especially for those who are lucky enough to have discovered the best business graphics program on the market and want to find out how to use it in time to finish that report, sales presentation, or product brochure that was due yesterday.

Have you ever needed to create a graph of recent sales trends, but you didn't want to create another cheesy, boring Excel graph that looks just like every other graph you've seen at every other sales meeting you've ever been to?

You need SmartDraw!

Have you ever been put in charge of a project and didn't want to invest hundreds of dollars in sophisticated project management software, such as Microsoft Project, just to create a simple project schedule?

You really need SmartDraw!

Have you ever wanted to rearrange the furniture and equipment in your office and didn't want to spend *thousands* of dollars on AutoCAD just to draw a simple floor plan?

You desperately need SmartDraw!

Whichever your business graphics needs, you've found the perfect book, and you're holding it right now in your formerly magic-marker-stained hands. Help is here, within these humble pages.

This book talks about SmartDraw in everyday — and often irreverent — terms. You'll find no lofty prose within these pages; the whole thing checks in at about the fifth-grade reading level. We have no Pulitzer expectations for this book; we leave that ambition for the Woodwards and Steinbecks among us.

Our goal here is to simply get you going as quickly as we can with the most powerful and easy to use business graphics software ever created. And hopefully, this journey of learning won't be a tedious or miserable experience — in fact, maybe it will even be kind of fun.

About This Book

This isn't the kind of book that you pick up and read from start to finish as though it were a cheap novel. If we ever catch you reading it at the beach, we'll kick sand in your face. Or better yet, we'll get Clint Eastwood and have *him* kick sand in your face. You'll listen to him.

This book is more like a reference book than a novel. It's the kind of book you can pick up, turn to just about any page, read for a page or two, and learn something useful. It has 22 chapters, each one covering a specific aspect of using SmartDraw, like printing, creating flowcharts, or transforming a SmartDraw graphic into a PowerPoint animation.

Each chapter is divided into self-contained chunks, all related to the major theme of the chapter.

For example, the flowchart chapter contains nuggets like these:

- ✓ Looking at flowcharts
- Understanding all the shapes used in flowcharts
- Creating a basic flowchart
- Splitting paths
- ✓ Creating cross-functional flowcharts with swim lanes

You don't have to memorize anything in this book. It's a need-to-know book: You pick it up when you need to know something. Need to know how to create an organization chart? Pick up the book. Need to know how to create a table? Pick up the book. After you find what you're looking for, put it down and get on with your life.

How to Use This Book

This book works like a reference. Start with the topic that you want to find out about: To get going, look for it in the table of contents or in the index. The table of contents is detailed enough that you should be able to find most of the topics that you look for. If not, turn to the index, where you find even more detail.

When you find your topic in the table of contents or the index, turn to the area of interest and read as much or as little as you need or want. Then close the book and get on with it.

This book is loaded with information, of course, so if you want to take a brief excursion into your topic, you're more than welcome. If you want to know all about the techniques for creating floor plans, read the chapter on floor plans. If you want to know all about applying color to a shape, read the chapter on color and design themes. Read whatever you want. You paid good money for this book, so read every word if you want. (Just not at the beach.)

On occasion, this book directs you to use specific keyboard shortcuts to get things done. When you see something like "Press Ctrl+Z," this instruction means to hold down the Ctrl key while pressing the Z key. (Don't type the plus sign.) Then release both together.

Sometimes we tell you to use a command that resides on one of the main toolbar's tabs. (SmartDraw uses a ribbon interface similar to those in Microsoft Office applications.) We tell you exactly how to find the command. For example, we might tell you something like this: On the main toolbar, click the Chart tab, find the Insert Chart group, and click the New Chart button.

Another nice feature of this book is that whenever we discuss a certain button that you need to click in order to accomplish the task at hand, a picture of the button appears in the margin. This way, you can easily locate it on your screen.

What You Don't Need to Read

Some parts of this book are skippable. We carefully place extra-technical information in self-contained sidebars and clearly mark them so that you can give them a wide berth. Don't read this stuff unless you just gots to know. Don't worry; we won't be offended if you don't read every word.

Foolish Assumptions

We make only three assumptions about you:

- ✓ You use a computer.
- ✓ It's a Windows computer not a Mac.
- ✓ You use or are thinking about using SmartDraw.

Nothing else. We don't assume that you're a computer guru who knows how to change a controller card or configure memory for optimal use. These types of computer chores are best handled by people who like computers.

Hopefully, you're on speaking terms with such a person. Do your best to stay there for those times when you're working with computer stuff that's more difficult than SmartDraw.

How This Book Is Organized

Inside this book are chapters arranged in five parts. Each chapter is divided into sections that cover various aspects of the chapter's main subject. The chapters have a logical sequence, so it makes sense to read them in order, if you want. But you don't have to read the book that way; you can flip it open to any page and start reading.

The following sections give you the lowdown on what's in each of the five parts:

Part 1: Getting Started with SmartDraw

In this part, you review the basics of using SmartDraw. This is a good place to start if you've never used SmartDraw, or if you've used it a few times but feel lost every time. Its five chapters take you on a tour of the SmartDraw windows and controls, walk you through creating a simple drawing from start to finish, tell you how to create simple shapes and lines and add text to them, and tell you what you need to know about printing your drawing.

Part 11: Embellishing Your Graphics

The chapters in this part show you how to make business graphics that look good. SmartDraw is actually pretty good at that, but it helps to know about its powerful features for applying color, fancy effects, and design themes, as well as how to add interesting things such as tables and images to your drawings. You also find out how to work with layers, one of SmartDraw's most powerful features for more complicated drawings.

Part 111: Creating Business Graphics

The chapters in this part focus on the most common types of graphics you can create with SmartDraw. We tell you how to work with charts, including bar charts, line charts, pie charts, flowcharts, organization charts, and project charts. We also give you instructions for creating floor plans, mind maps, and Live Maps.

Part IV: Using SmartDraw with Microsoft Office and the Web

One of the best features of SmartDraw is the way it integrates with Microsoft Office and the Internet. The first two chapters in this part show you how to use SmartDraw's Office integration features, which let you easily transfer drawings from SmartDraw into Word, Excel, or PowerPoint. You also find out how to take your SmartDraw creations to the Web.

Part V: The Part of Tens

This wouldn't be a *For Dummies* book without lists of interesting snippets. Thus, you find chapters with titles such as Ten SmartDraw Commandments, Ten Odd and Unusual SmartDraw Templates, Ten Tips for Creating Great Business Graphics, and Ten Things You Didn't Think to Use SmartDraw For.

About the CD

The CD that comes with this book contains lots of stuff to help you be productive with SmartDraw. It includes a 30-day, fully functional trial version of SmartDraw 2009. There are also many example files that you can use as you go through the book. There are also some reference materials, including the Encyclopedia of Business Graphics poster in PDF format and a number of SmartDraw best practice PowerPoint presentations.

Icons Used in This Book

As you're reading all this wonderful prose, you occasionally see the following icons. They appear in the margins to draw your attention to important information. They're defined as follows:



Watch out! Some technical drivel is just around the corner. Read it only if you have your pocket protector firmly attached.



Pay special attention to this icon — it tells you that some particularly useful tidbit is at hand, perhaps a shortcut or a way of using a command that you might not have considered.

SmartDraw For Dummies _____



Danger! Danger! Stand back, Will Robinson!

Did we tell you about the memory course we took?

Where to Go from Here

Yes, you can get there from here. With this book in hand, you're ready to charge full speed ahead into the strange and wonderful world of desktop drawings. Browse through the table of contents and decide where you want to start. Be bold! Be courageous! Be adventurous! Above all else, have fun!

Part I Getting Started with SmartDraw



"Look-what if we just increase the size of the charts?"

In this part . . .

Ince upon a time, the term business graphics meant bar charts and pie charts. But now that you've decided to equip your software arsenal with SmartDraw, business graphics can mean so much more. With SmartDraw, you can create literally hundreds of different kinds of graphics — business or otherwise. SmartDraw can create a graphic to fill just about any need you can imagine — from flowcharts and organization charts to floor plans and mapping.

The chapters in this part comprise a bare-bones introduction to SmartDraw. You find out exactly what SmartDraw is and how to use it to create drawings and graphics. You discover how to create and edit simple shapes, how to work with text, and how to print your masterpiece.

More advanced stuff such as working with themes or using the advanced tools for creating specific types of graphics like flowcharts and floor plans is covered in later parts. This part is just the beginning. As a great king once advised, "It's best to begin at the beginning and go on until you come to the end; then stop."

Chapter 1 Welcome to SmartDraw

In This Chapter

- Introducing business graphics
- Considering how business graphics differ from other types of graphics
- Finding out what kinds of business graphics you can create with SmartDraw

elcome to SmartDraw, a program that lets you create professionalquality business graphics even if (or maybe *especially* if) you aren't a professional business graphic artist.

Sure, you can use many programs to create business graphics. You may even already own some of them. But most of these programs are limited to just one or two specific types of business graphics. For example, Microsoft Excel can create pie charts, bar charts, and the like. But Excel isn't very good at creating project charts to schedule the various phases of a project. You can use Microsoft Project to do that, but Project isn't very good with floor plans or schematics. AutoCAD is really good with floor plans and schematics, but . . . well you get the idea.

In contrast, SmartDraw is a tool for creating just about any type of business graphic you might imagine. In fact, SmartDraw can create literally hundreds of different types of business graphics, from area charts to yearly calendars. (Sorry. There isn't a business graphic that starts with the letter z — but if there were one, we guarantee SmartDraw could create it!)

This chapter is a gentle introduction to this powerful program. It begins with an overview of what business graphics are all about. Then, it jumps into the basics of working with SmartDraw. When you finish this chapter, you'll have a good idea of the range of business graphics SmartDraw can create, and you'll be ready to use it to create them.

You, Too, Can Create Business Graphics

In today's business world, few people take the time to read 100 words, let alone 1,000. In the era of text messaging, sometimes even just ten words are too many.

That's why we use business graphics. Often, you can find no other way to make your point clearly, persuasively, or powerfully than with a carefully chosen image. Business graphics have the power to convince others and to explain at a glance something that can be difficult or even impossible to express in words.

Now, you may balk at the term *business graphics*. Your first response might be, "Not for me! Fancy business graphics are great for big Fortune 500 companies, but my business is small enough that I don't need 'em."

Or maybe your response is, "Business graphics would be great if I had half an ounce of artistic ability. But every diagram I ever tried to create looks like it was drawn by a third grader."

Or maybe: "I wish I had the budget to hire a professional graphic designer to add some polish to my reports and proposals, but the simple charts I create with Excel will have to do."

Although you may not realize it, you probably use business graphics all the time. And not just simple pie charts you've thrown together quickly with Excel. You've created business graphics over the years, if you've done the following:

- ✓ Sketched a few boxes with names in them to show the chain of command in your business. If so, you've drawn an *organization chart*, one of the most common business graphics. (Hopefully, your name was in the box at the top.)
- ✓ Planned your office's layout by sketching some lines to represent the walls, then drawn some rectangles to show where you want desks, chairs, and shelves. If so, you've created a *floor plan*. (Hopefully, your office was the one in the corner, with the big window overlooking the lake.)
- ✓ Drawn lines through a calendar to show how long it should take to complete various stages of a project. If so, you've created a *Gantt chart*.
- ✓ Sketched the steps necessary to complete a task such as filling out and submitting a medical insurance claim, using boxes to represent the steps and arrows to show how one step flows to the next. If so, you've created a *flowchart*.

Then, maybe you've taken the tools that happen to be lying around — typically Word, Excel, or PowerPoint — and dropped a few clumsy rectangles or circles on the page, plopped down some text to explain what the shapes represent, and then scratched out some lines to connect things together. So you see, you've been creating business graphics all along. But you've been doing it the hard way. You've used crude drawing tools to create things that the tools were never intended to create, and you might have spent most of your time trying to get things to line up or be the right size or color. Then maybe you've added some cheesy clip art or shadow effects in an attempt to make your drawing look halfway decent.

Most of the time, what you end up with is a drawing that barely communicates the message you originally intended, is difficult to make even the slightest change to later on, and looks terrible.



That's where SmartDraw comes in. Unlike most other programs, SmartDraw doesn't consider business graphics an afterthought. The whole point of SmartDraw is to create sensational business graphics — not just graphics that look good, but graphics that, in some cases, practically draw themselves because they have built-in intelligence.

And SmartDraw isn't limited to just one kind of business graphic. It's designed to create dozens of different kinds of business graphics. When you learn how to use the core set of drawing tools presented in the first eight chapters of this book, you'll be able to draw just about any kind of business graphic imaginable.

Comparing SmartDraw to Other Drawing Programs

Before we get too far into how SmartDraw works and what you can use it for, we need to point out some key differences between SmartDraw and other kinds of drawing programs.

To start, realize that SmartDraw is designed to create business drawings, not artistic or technical drawings. The best known examples of artistic drawing programs are Adobe Illustrator and CorelDraw. These programs are designed to be used by professional artists and photographers to create professionalquality art. Adobe Illustrator and CorelDraw are sometimes used in business to create the more artistic variety of business graphics, such as company logos, flyers, posters, and so on. But their primary purpose is artistic, and their primary users are professional graphic artists.

The best known technical drawing program is AutoCAD, made by Autodesk. Drafting and computer-aided design (CAD) programs are designed to create precision technical drawings that represent real-world objects, such as buildings, bridges, or roller coasters.

Give me a vector, Victor!

One useful way to classify drawing programs is the distinction between bitmap and vector drawing programs. SmartDraw is a vectorbased drawing program.

Here's the skinny:

- A bitmap drawing program is a program that treats graphics as a big collection of dots called *pixels*. Bitmap images are also referred to as *raster images*. Adobe Photoshop is the best-known example of a bitmap graphics program.
- A vector drawing program is a program that treats graphics as actual shapes rather than as a group of pixels. The program keeps track of all of the characteristics that make up each shape in a drawing, such as the type of shape (for example, a circle, rectangle, line, and so on), as well as other properties like the exact size and position of the shape, the shape's color, and so on.

There are advantages and disadvantages to both types of drawings. Bitmaps are usually best suited for photographs and other types of artistic drawings. Vector images are best suited for business graphics and technical drawings.

The key difference between a bitmap drawing program and a vector drawing program is that

when you draw an object in a bitmap program, the drawing doesn't keep track of any information about the object except the pattern of pixels required to display the object. For example, a bitmap drawing program doesn't know that a circle is actually a circle or that a line is actually a line. Instead, everything in the entire image is just a big blob of dots.

In contrast, a vector drawing program is essentially a database that keeps track of information about all the various shapes that make up the drawing.

An important consequence of this is that you can easily scale vector drawings. With a bitmap image, the picture becomes coarser the more you zoom in. If you zoom in far enough, the image becomes a big blur of dots. In contrast, you can enlarge (or reduce) a vector drawing as much as you want and it still remains perfectly clear.

Note that the distinction between bitmap and vector drawing programs isn't absolute. In particular, vector drawing programs can include bitmap images embedded within the drawing. You learn how to incorporate bitmap images into your SmartDraw business graphics in Chapter 8.

Both of these types of drawing programs require great artistic or technical skill. And they both have a long learning curve to master. Plop a typical computer user down in front of a program like Photoshop or AutoCAD and he or she will spend hours just trying to figure out basic things like how to draw a simple rectangle or how to select an object that appears to be sitting in plain view. These are powerful programs, but they're anything but easy to use.

SmartDraw doesn't fit into either of these two categories. Although you can use SmartDraw to create drawings that are artistically pleasing and encompass some degree of technical precision, SmartDraw has an entirely

different purpose than Photoshop or AutoCAD. SmartDraw is designed to create a wide variety of commonly used business graphics, diagrams, and charts using lines, simple and complex geometric shapes, and other readymade objects that you can simply drag and drop onto your drawings.



Here are some of the key features that set SmartDraw apart from other types of drawing programs:

- SmartDraw comes with hundreds of predefined drawing templates that you can start from to create just about any kind of business graphic. And we really mean hundreds — it has more than 1,900 templates in all. In fact, one of the most challenging aspects of using SmartDraw is choosing the perfect template for your drawing from among the vast array of templates.
- SmartDraw is a vector-based program. It keeps track of the individual shapes that make up a drawing rather than the individual dots that make up a picture. (For more information, see the sidebar, "Give me a vector, Victor!")
- SmartDraw requires very little artistic skill to create great-looking drawings. Throughout the program, you'll find features designed to help you create drawings that look professionally drawn. Most of the time, all you have to do is drag and drop predefined elements onto a predefined template and apply predefined formats and themes.
- ✓ One of the most important features of SmartDraw is its built-in intelligence that is, the Smart in SmartDraw. Most graphics programs are little more than digital versions of an artist's tools: canvas, paint, brushes, easel, and so on. The tools are great, but you're on your own to use them to create something worth looking at. In contrast, SmartDraw contains intelligence that actually helps you draw your graphics. It's almost as if a skilled graphic artist is sitting next to you, nudging your mouse in the right direction as you create your graphics.

You'll see plenty of examples of this intelligence throughout SmartDraw. For example, when you create an organization chart, the software takes care of the tedious task of connecting the boxes to each other with lines. All you have to do is drop the boxes onto the page in their approximate locations; SmartDraw snaps the boxes into the exact right spot, then automatically draws the connecting lines.

✓ SmartDraw is less expensive than other graphics programs. Last time we checked, Microsoft Visio sells for about \$400; Adobe Illustrator about \$600; and AutoCAD LT — the simplified version of AutoCAD — is nearly \$1,000. In contrast, you can purchase SmartDraw for under \$300.

Knowing What You Can Do with SmartDraw

SmartDraw is a powerful program that you can use to create any type of business graphic you can conceive of. If you haven't opened SmartDraw yet and looked at the list of templates in the left-hand panel, you might want to try it now. You find the following categories:

Accounting & Finance	Human Resources
BPM & Six Sigma	Landscaping
Calendars	Maps
Cause & Effect	Marketing Charts
Certificates	Mind Maps
Charts	Network Design
Decision Trees	Org Charts
Education	Project Management
Engineering	Retail & Planograms
Event Planning	Simple Diagrams
Family Trees	Software Design
Financial & Estate Planning	Storage Design
Floor Plans	Storyboards
Flowcharts	Strategic Planning
Flyers	Timelines
Forms	Web Design
Gantt Charts	

This list doesn't even include the subcategories that are found within most categories. For example, you'll find seven subcategories under Human Resources, including Employment Forms and HR Scorecards. And under Marketing Charts, you'll find 34 subcategories, including Affinity Diagrams, Competition Matrix, Competitive Analysis, Marketing Trends Summary, Strategy Maps, and Venn Diagrams.

In short, SmartDraw can create almost anything you can imagine, and probably quite a few things you never imagined. You'll probably never use more than a handful of these diagrams, but even that handful — especially the core business graphics — have the power to radically improve the way you do business.

In the following sections, we show just a few of the most commonly used templates, just to give you a feel for the types of business graphics you can create with SmartDraw.

Flowcharts

A *flowchart* is a diagram that graphically shows the steps that must be followed to complete a procedure or task. Flowcharts, also known as *process charts*, were the foundation of SmartDraw version 1.0 in 1995, and the flow-chart tool remains one of its most powerful and distinctive features, even today. SmartDraw simply excels at making flowcharts.

If the very idea of a flowchart makes you cringe, relax. It's true that flowcharts are often used for complicated and technical applications such as managing an oil refinery or launching the space shuttle. But flowcharts aren't just for mind-boggling applications like those. Every business has processes. And even if your company's most complicated process is mailing a package or taking a phone call, a flowchart is often the best way to document and improve that process.

SmartDraw comes with more than 40 templates for creating various types of flowcharts. Figure 1-1 shows just one example.

Flowcharts are so powerful in SmartDraw that Chapter 11 is devoted to them.

Organization charts

Everyone has seen an organization chart — those diagrams that show the management structure of a company with a box for each employee and lines to indicate who reports to whom. Many of us have suffered the thankless and tedious task of drawing them. SmartDraw can't remove the thankless part from the task, but it can definitely help with the tedious part. Figure 1-2 shows an example of an organization chart — an *org chart*, as SmartDraw calls them.

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The best part about creating organization charts in SmartDraw is that SmartDraw practically does all the work for you. SmartDraw automatically takes care of drawing the lines that connect the boxes to one another and indicate the working relationships. You can drag boxes around the page, and SmartDraw automatically adjusts the entire chart to match the new configuration.



One especially nice feature is that you can drop photos of employees into the chart and SmartDraw attaches them to their boxes. You can even zoom, crop, resize, and edit the photos right in the chart.

For more information about creating organization charts with SmartDraw, see Chapter 12.



Project (Gantt) charts

A *project chart*, also known as a *Gantt chart*, is a kind of horizontal bar chart used to track the schedule of a project. If you're a professional project manager and spend several hours every day crafting Gantt charts, you should probably invest in expensive software specifically designed for project management, such as Microsoft Project. But if you just need to create an occasional Gantt chart, there's no need to invest in a separate program. SmartDraw is very adept at creating Gantt charts like the one shown in Figure 1-3.

	Busin	less Prep. for Inspect	ion 34												
	Number	Task	Resource	Start	End Duration	Q1 - 2008			Q2 - 2008			Q3 - 2008			
							January.	February	March	April	May	June	July.	August	September
	1	Initial Meetings		2/12/2008	3/11/2008	20		-							
	2	Preparations		3/1/2008	5/27/2008	.61				-					
	: 3	Gather All Data		3/2/2008	4/8/2008	26		1.1	Concession in which the						
	4	Scenarios & Heetings		3/12/2008	6/5/2008	61				_	_				
	5	Stakeholders		4/2/2008	4/23/2008	15									
	5	Meeting Minutes (Dale)		4/12/2008	5/24/2008	30									
	2.5	Design/Print Invitations		4/2/2008	5/28/2008	-40				Distance of the local					
	8	Gather Data		5/1/2008	7/3/2008	-45									
F' 4 0		Revisions		4/1/2008	6/25/2008	61				-	_				
Figure 1-3:	10	Model for Display		4/12/2008	6/14/2008	45									
1 0	3.1	Prepare Report		5/1/2008	6/14/2008	.32				-					
An Gantt	3.7	Cost Analysis Data Prep.		1/1/2008	3/4/2008	45									
	1.3	Cost Analysis Tech Prep-		6/1/2008	8/2/2008	45						Real Property lies	1	4	
chart.	14	Distribute Invitations		5/1/2008	6/11/2008	29									
	3.5	Stakeholders 2		5/12/2008	6/21/2008	30									
	26	Publish All Reports		7/1/2008	9/18/2008	57							-	(second	

The horizontal bars on a project chart represent tasks. The horizontal axis of the chart represents time. The length of the bars on the chart shows how much time each task will take, and it identifies when the task will start and when it will end. You can add special symbols to the chart to represent milestones or dependencies, and of course SmartDraw has ready-made libraries of these symbols.

The beauty of a project chart is that it lets you see, at a single glance, the status of all the various tasks in a project that are happening simultaneously. Project charts are continuously updated to reflect the current status of each task, so you can see which parts may be falling behind, or even (in some alternate universe, perhaps) ahead of schedule.

For more information about using SmartDraw to create Gantt charts, see Chapter 14.

Mind maps

If a mind map sounds like something from Star Trek, don't worry; you won't have to put your head in a scanner or anything. (Although that could be a real timesaver. Maybe a future version of SmartDraw will include this as an option!) A mind map is just a visual way of organizing your ideas. See Figure 1-4.



A *mind map* is the visual equivalent of a text outline, the kind where you have main topics, followed by subtopics, followed by sub-sub-topics, and so on down the line. The benefits of sketching a mind map rather than writing a text outline is that the mind map engages the creative side of your brain and can often reveal new perspectives or solutions that you wouldn't have noticed within the linear constraints of a text outline.

As you would expect, SmartDraw has built some nice intelligence into its mind maps. For starters, you can easily convert a mind map to a text outline — a real timesaver for creating presentation bullet points or a table of contents! And you can also easily convert a mind map into a Gantt chart.

For more information about creating mind maps in SmartDraw, see Chapter 14.

Bar charts and graphs

When most people think of business charts, they of think of the basic bar chart or pie chart. Naturally, SmartDraw excels at creating these types of charts. Figure 1-5 shows an example of a bar chart and a pie chart created with SmartDraw.





An Express Charts feature lets you simply type numbers into the bars, or pie slices, and the chart remakes itself to match your figures. You don't have to create a spreadsheet or data table first.

SmartDraw can make the following variations on these basic data charts as well:

- 🖊 Area chart
- Layered area chart
- ✓ Stacked bar chart
- 🖊 Line chart
- Relative value chart

One of the most interesting features of SmartDraw for creating bar and pie charts is its ability to substitute images or clip art for the bars or pie segments. This can lead to visually engaging charts, such as the one shown in Figure 1-6.

For more information about creating bar and pie charts, see Chapter 10.



Floor plans

A floor plan is one of those things that nearly everyone needs to make at one time or another — whether you're rearranging office cubicles, redecorating a room, or moving to a new building and trying to decide if your old furniture will fit. But the software traditionally used to create floor plans, such as AutoCAD, tends to be very expensive and difficult to learn.

Fortunately, SmartDraw has more than 50 templates specifically for creating floor plans. Figure 1-7 shows a floor plan created with one of them.

SmartDraw provides libraries with hundreds of ready-made objects for floor plans, including furniture, light fixtures, plants, windows, doors, and even technical stuff like plumbing and wiring. And SmartDraw's floor plan templates have all the smarts you need to draw perfect rooms, walls, and buildings to place it all in.


Your floor plan need not stop at the walls of your building, either. SmartDraw can help you with landscape plans as well, so you can design anything from your home garden to your company's office campus, right down to the last shrub and sprinkler.

If you want to find out more, you're in luck. Chapter 13 is devoted to teaching you how to create floor plans with SmartDraw.

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Chapter 2

Creating a Business Graphic with SmartDraw

In This Chapter

- ▶ Firing up SmartDraw
- Creating a business graphic from scratch
- ▶ Getting used to the SmartDraw user interface
- Saving your work
- Getting help

This chapter introduces you to the basics of creating business drawings with SmartDraw. In this chapter, we show you how to create a simple organization chart. Note, however, that the basic techniques you discover in this chapter apply for any type of SmartDraw graphic.

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Along the way, you find out how to use the various features of SmartDraw's user interface, including the main toolbar and its various tabs, the SmartPanel, the SmartDraw button, and other odds and ends.

Starting SmartDraw

Like any other Windows program, you can start SmartDraw in several ways. Here are the most common:

- ✓ Double-click the SmartDraw icon on your desktop.
- ✓ Click the Windows Start button, then choose All Programs⇔SmartDraw 2009⇔SmartDraw 2009.
- ✓ If you've used SmartDraw recently, click the Windows Start button, then look for SmartDraw on the frequently used program list that appears.

✓ Double-click any SmartDraw drawing from Windows Explorer. (SmartDraw documents are named using the filename extension .sdr. Note that SmartDraw drawings are called both *drawings* and *documents*. We use the terms somewhat interchangeably throughout this book.)



If you want SmartDraw to always appear at the top of the Start menu, choose Start >All Programs >SmartDraw 2009, then right-click SmartDraw 2009 and choose the Pin to Start Menu command.

Welcome to the Document Browser

Most programs begin by displaying their main screen and require you to take the additional step of opening an existing document or creating a new document. Not SmartDraw; it begins by displaying a special Document Browser window (shown in Figure 2-1) that helps you get started quickly.



Take a moment to familiarize yourself with the main parts of this window.

- ✓ New Document: This tab, displayed by default, lets you create a new document based on one of the many templates supplied with SmartDraw.
- Saved Documents: This tab lets you open an existing SmartDraw document. For more information, see the section "Opening an Existing Drawing" later in this chapter.
- Category List: This panel displays a list of categories you can choose from. When you click one of these categories, a list of available templates appears in the SmartTemplates area of the Document Browser.

The first item in the Category List isn't really a category for creating a new document; instead, it's just a shortcut for the Saved Documents tab.



The second item in the Category List — My Favorites — is initially empty. As you work with SmartDraw and discover which templates you like to use the most, you can add those templates to the My Favorites category. Just right-click any template and choose Add to Favorites.

✓ SmartTemplates: This area displays thumbnail views of the various templates that are available for each category. To create a drawing based on one of these templates, click its thumbnail image.

For most categories, the templates are organized into two or more groups. The first group is often a basic group that contains templates that are empty or nearly empty, designed for creating generic drawings from scratch. The other groups contain more developed drawings that can often save you a lot of time when you create more complicated drawings.

✓ SmartHelp: This pane provides help information. You'll see this pane frequently as you work with SmartDraw. The SmartHelp pane automatically adjusts the information it displays based on the task at hand, so odds are that when you get stuck, the information you need to help you get unstuck is already displayed in this pane. (At least that's the theory. Without actually connecting electrodes to your head, it's difficult for SmartDraw to actually know what you're thinking.)

Creating a Simple Drawing from Start to Finish

Enough of the overview; here are the actual steps for creating, saving, and printing a new drawing — in this case, an organization chart:

1. Start SmartDraw.

You can use any of the techniques described in the earlier section, "Starting SmartDraw."

2. Select a category.

Click one of the categories in the Category List to display thumbnails of the templates that belong to that category. For example, if you click the Org Charts category, a set of nine different templates for organization charts is displayed in the SmartTemplates area, as shown in Figure 2-2.



3. Click the SmartDraw template you want to use.

SmartDraw then creates a new drawing based on the template you select. For example, Figure 2-3 shows a drawing based on the Blank Org Chart template.

4. Edit the drawing.

Most of the rest of this book is devoted to showing you how to do that. You can find some brief pointers to get you started later in this chapter, in the section "Editing Your Drawing."



5. To print your masterpiece, click the Print button.

The Print button is located near the top-left side of the window. For more information about printing, turn to Chapter 5.

6. To save the drawing, click the Save button.

The Save button is located near the top-left side of the window. For more information about saving drawings, see the section "Saving Your Work" later in this chapter.

Looking at the SmartDraw User Interface

When you've selected a template to create a new drawing, or when you've opened an existing drawing, SmartDraw displays its main drawing screen, which is cluttered with enough gadgets and controls that you might be tempted to trade SmartDraw for a stack of construction paper and a box of crayons.

Don't do it! With just a few minutes of orientation, the SmartDraw screen comes into focus, and you can quickly come to appreciate the power offered by its many user interface features.

Figure 2-4 shows the basic SmartDraw user interface screen with the major doohickeys labeled for your convenience.



SmartDraw button

The following list explains each of these labeled parts:

- ✓ Drawing area: Right smack in the middle of the SmartDraw window, and taking up most of its space, is the drawing itself.
- ✓ Main toolbar: Across the top of the screen, just below the SmartDraw title, is SmartDraw's main user-interface gadget, officially called the main toolbar. If you've worked with recent versions of Microsoft Office, you'll recognize right away that this toolbar is modeled after The Ribbon found in Office applications such as Word, PowerPoint, and Excel.

If you've never worked with a ribbon-style interface, the main toolbar may take some getting used to. But after you figure it out, it actually does become easier to use than old-style menus and toolbars.

The exact appearance of the main toolbar varies a bit depending on the size of your monitor. On smaller monitors, SmartDraw may compress the main toolbar by using smaller buttons, arranging them differently, or showing fewer of them.

For more information about working with the main toolbar, see the section "Unraveling the Main Toolbar" later in this chapter.



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✓ SmartDraw button: The SmartDraw button is the big icon that appears in the top-left portion of the SmartDraw window. You can click this button to reveal the SmartDraw menu, which has the following commands:

- New: Creates a new drawing.
- Open: Opens an existing drawing.
- Save: Saves the current drawing.
- Save As: Saves the current drawing using a new filename.
- Print: Prints the current drawing.
- *Export:* Converts the current drawing to a different file format.
- *Email:* Sends the current drawing as an e-mail message.
- *Spell Check:* Checks the spelling in the current drawing.
- Options: Lets you set several SmartDraw options.
- Utilities: Provides access to several utility functions.
- Close: Closes the current document.
- Exit: Exits the SmartDraw program.
- ✓ Single-Click toolbar: This toolbar is located right next to the SmartDraw button, above the main toolbar. It consists of the following buttons:
 - Undo: Reverses the most recent action.
 - *Redo:* Re-applies whatever action was most recently undone in other words, the Redo button undoes the last undo.
 - New: Creates a new drawing.
 - Save: Saves the current drawing.
 - Print: Prints the current drawing.
 - *Export as PDF*: Creates a PDF of the current drawing.
 - *Export to Word:* Converts the current drawing to a Word document.
 - *Export to Excel:* Converts the current drawing to an Excel document.
 - *Export to PowerPoint:* Converts the current drawing to a PowerPoint document.

- ✓ Work Area toolbar: This is a small toolbar that's located just above the main drawing area. It contains two buttons:
 - *Zoom:* Adjusts the zoom factor to make your view of the drawing larger or smaller. For more information, see the section "Zooming in" later in this chapter.
 - *Rulers:* Shows or hides the rulers on the left and top edges of the drawing area. By default, the rulers are hidden, but you can summon them by clicking this button. Figure 2-5 shows what SmartDraw looks like with the rulers visible, which helps you visually gauge the size and position of objects in your drawing.
- ✓ SmartPanel: The SmartPanel appears to the left of the drawing area. It's called the *Smart*Panel because the controls that appear in this panel adjust themselves depending on the template you're using. For example, when you create an organization chart, the SmartPanel contains controls that are unique to organization charts, such as Add Employee Below and Add Assistant. But if you're creating a floor plan, the SmartPanel contains commands like Add Single Wall or Show Dimensions.
- Library: You use this tab to add new shapes to your drawing. For more information, see Chapter 3.



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Unraveling the Main Toolbar

The main toolbar is patterned after The Ribbon interface used in Microsoft's Office products. As a result, if you've worked with Office 2007, you should have no trouble working with SmartDraw's main toolbar.

The interface used by the main toolbar is a sort of hybrid of traditional menus and toolbars. Across the top is a series of tabs that resemble traditional menus. But when you click one of these tabs, a separate pull-down menu doesn't appear. Instead, each tab brings up a different collection of commands. Whenever you change tabs, a different set of commands appears.

The SmartDraw main toolbar displays the following nine tabs:

- ✓ Home: Contains the most common commands for working with SmartDraw drawings, including commands for working with the clipboard (copy, cut, and paste), selecting objects, creating shapes and lines, applying themes and styles, and formatting text.
- Design: Commands that affect the design and appearance of the shapes in your drawing, including the size and position of individual shapes, alignment and layout commands, and other shape properties.
- ✓ Insert: Commands for inserting things into your drawing. You can insert tables, pictures, charts, notes, maps, Web pages, and hyperlinks.
- ✓ Page: Commands for adjusting the page layout. You can use this tab to set the page background, the page orientation and margins, and ruler and grid options. Strangely enough, the Find and Replace commands are also located on this tab. (In most programs that use the ribbon interface including Microsoft Office programs these commands are on the Home tab. Go figure.)
- ✓ Table: Commands for working with tables. (For more information about this tab, refer to Chapter 7.)
- Chart: Commands for working with charts. (For more information, refer to Chapter 10.)
- Picture: Commands for working with pictures. (For more information, refer to Chapter 8.)
- PowerPoint: Commands for exporting drawings to Microsoft PowerPoint. (For more information, refer to Chapter 17.)
- ✓ Help: Commands for getting help with SmartDraw. For more information, see the section "Getting Help" later in this chapter.

Editing Your Drawing

A SmartDraw drawing is essentially a collection of shapes. When you create a drawing from a template, an initial set of shapes is added to the drawing. But to transform a template into a finished drawing, you'll almost always edit those initial shapes and add shapes of your own.

Most of the rest of this book is devoted to showing you how to do that. And the next chapter in particular presents many of the techniques you'll use most often to add and edit shapes. But to get you started, the following sections present a brief overview of the most common techniques for editing and adding shapes.

Editing shapes

To edit a shape, first click the shape to select it. When it's selected, you can drag the shape to a new location, or you can drag one of the corner or edge handles to resize the shape.

You can select more than one shape by holding down the Ctrl key while clicking each shape. Or you can click and hold the mouse outside of any shape, then drag the mouse to trace a selection box. When you release the mouse, all shapes within the box are selected.

Editing text

To add or edit text in a shape, double-click the shape and start typing.

Most of the keyboard shortcuts that you're already familiar with for formatting text — such as Ctrl+B for bold and Ctrl+I for italic — work as they do in other programs. You can also use the Font and Paragraph controls on the Home tab of the main toolbar to format text.

Adding shapes

There are several ways to add shapes to a drawing, including the following:

Choose a command from the SmartPanel. It usually has commands for adding the most common types of shapes used for the template you selected. For example, if you use the organization chart templates to create a drawing, the SmartPanel contains commands such as Add Employee Below and Add Assistant.

- Add additional types of shapes that are appropriate for the template you selected from the Library tab. This displays one or more libraries of shapes that are associated with the template. To add a shape from the library, simply drag the shape from the Library tab onto the drawing.
- Add a basic shape such as a rectangle or an oval with the Shape tool on the Home tab of the main toolbar. For example, to add a rectangle, click the Shape drop-down arrow, choose the Rectangle shape, and then drag the rectangle from the Home tab to the drawing. (You can also use the Line control on the Home tab to add lines to the drawing.)

Applying a theme

SmartDraw has many tools that let you customize the exact appearance of every shape individually. You find out how to use many of these tools in subsequent chapters. Until then, you can use the Theme section of the Home tab to apply one of several predefined looks to all of the shapes in your drawing at once. Just click the theme you like and all of the shapes in the drawing will adopt the formatting specified by the theme.

Although only three themes appear on the Home tab, SmartDraw offers many more themes. You can view additional themes by using the scroll buttons on the right edge of the Theme area of the main toolbar or by clicking the pulldown button at the bottom right of the Theme area.

Zooming in

The zoom factor determines how much of your drawing is visible in the drawing window and, therefore, how large the objects in your drawing appear. You can zoom in close to work on the fine details of your drawing, or you can zoom out to see the entire drawing at once so you can work on the big picture.

You can use the following two ways to change the zoom factor:

Click the magnifying glass button on the Work Area toolbar that appears just above the drawing. The mouse pointer changes to a magnifying glass. You can then click any part of the drawing to zoom in for a closer view. Each time you click, the zoom factor increases until the maximum allowable zoom factor — 800% — is reached. To zoom out, right-click. ✓ Click the zoom percentage button on the Work Area toolbar. A menu opens that lets you select the zoom factor. You can choose one of several preset factors (50%, 75%, 100%, 150%, 200%, or 400%), you can fit the entire drawing to the window, or you can click Custom to set the zoom factor to any arbitrary percentage.



The zoom doesn't change the actual, printable size of your drawing, just its appearance on your screen.

Saving Your Work

After you've spent a few minutes creating the best business graphic since Michelangelo painted the Sistine Chapel, it's time to save your work to a file. If you make the rookie mistake of turning off your computer before you've saved your drawing, *poof!* Your work vanishes as if David Copperfield were in town.

You have at least these three ways to save a document:

- ✓ Click the Save button on the Single-Click toolbar.
- ✓ Press Ctrl+S.
- ✓ Click the SmartDraw button and then choose Save.

If you haven't yet saved the file to your hard drive, the magical Save As dialog box appears. Type the name that you want to use for the file in the Save As dialog box and click OK to save the file. After you save the file once, subsequent saves update the hard drive file with any changes that you made to the drawing since the last time you saved it.

After you save a file for the first time, the name in the drawing window's title area changes from *Untitled* to the name of your file. This is simply proof that you've saved the file.



Keep the following tips in mind when saving files:

- Put on your thinking cap when assigning a name to a new file. The filename is how you can recognize the file later, so pick a meaningful name that suggests the file's contents.
- Don't work on your file for hours at a time without saving it. Get into the habit of saving every few minutes, especially after making a significant change to a drawing, such as adding a covey of new shapes or making a gaggle of complicated formatting changes.
- Always save before you print.

Opening an Existing Drawing

If you've already created and saved a SmartDraw document and you merely want to resume working on it, you can open the existing document by using one of the following methods:

✓ Start SmartDraw from the Windows Start menu. Then, when the Document Browser appears, either click the Saved Documents tab or select Saved Documents in the Category List. A list of your recently saved drawings appears. If the drawing you want to open isn't shown, click the Browse button to summon an Open dialog box that lets you peruse your entire hard disk for the drawing you want to open.

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The fastest way to open a file from the Open dialog box is to double-click the file. You're spared from having to click the file once and then click OK. Double-clicking also exercises the fast-twitch muscles in your index finger.

✓ If SmartDraw is already running, click the SmartDraw button (the icon at the top-left side of the SmartDraw window) and then click the Open button. The Saved Documents tab of the Document Browser appears.

SmartDraw adds recently opened documents to the menu that appears when you click the SmartDraw button. Be sure to have a quick look before you click the Open button.

- ✓ An alternative if SmartDraw is already running: Press Ctrl+O.
- ✓ You can also use Windows Explorer (press Windows+E on your keyboard) to navigate to the drawing you want to open and then doubleclick the document. Windows launches SmartDraw and automatically opens the document.



If you seem to have lost a drawing, rummage around in different folders to see whether you can find it. Perhaps you saved a file in the wrong folder by accident. Also, check the spelling of the filename. Maybe your fingers weren't on the home row when you typed the filename, so instead of OrganizationChart, you saved the file as PthsmoxsyopmVjsty. If all else fails, you can use Windows's built-in Search feature. You're looking for files with the .sdr filename extension.

Closing a Drawing

Having finished and saved your drawing, you have come to the time to close it. Closing a drawing is kind of like gathering your papers, putting them neatly in a file folder, and returning the folder to its proper file drawer. The drawing disappears from your computer screen. Don't worry: It's tucked safely away on your hard drive, where you can get to it later if you need to. To close a file, do one of the following:

- ✓ Click the Close button that appears at the top-right side of the SmartDraw window. Clicking the Close button is the easiest way to close a file.
- Click the SmartDraw button and then choose Close.
- ✓ Press Ctrl+W.



You don't have to close a file before exiting SmartDraw. If you exit SmartDraw without closing a file, SmartDraw graciously closes the file for you. The only reason that you might want to close a file is that you want to work on a different file and you don't want to keep both files open at the same time.

If you've made changes since the last time you saved the file, SmartDraw offers to save the changes for you. Click Yes to save the file before closing or click No to abandon any changes that you've made to the file.

If you close all the open SmartDraw drawings, you return to the Document Browser, where you can create a new drawing.

Exiting SmartDraw

Had enough excitement for one day? Use any of these techniques to shut SmartDraw down:

- Click the SmartDraw button and then click Exit SmartDraw.
- ✓ Click the X box at the top-right corner of the SmartDraw window.
- Press Alt+F4. (Alt+F4 is one of those magic Windows shortcut keys that works in any program.)

Bam! SmartDraw is history.

You should know a couple of things about exiting SmartDraw (or any program, for that matter):

SmartDraw doesn't let you abandon ship without first considering whether you want to save your work. If you've made changes to any drawing files and haven't saved them, SmartDraw offers to save the files for you. Lean over and plant a fat kiss right in the middle of your monitor — SmartDraw just saved you your job.



✓ Never, never, never, ever, never turn off your computer while SmartDraw or any other program is running. Bad! Always exit SmartDraw and all other programs that are running before you turn off your computer.

Getting Help

Wouldn't it be great if SmartDraw came with an actual graphic artist who would sit patiently at your side? The artist would answer all of your questions with straightforward, simple answers, gently correcting you — without being condescending — when you make silly mistakes. Otherwise, he or she would mind his or her own business.

Short of that, the next best thing is to find out how to coax the software into giving you the answers you need. Fortunately, SmartDraw includes a nice, built-in help feature that can provide the answers you're looking for. No matter how deeply you're lost in the SmartDraw jungle, help is never more than a few mouse clicks or keystrokes away.

- ✓ The SmartHelp button, found above the main drawing area and to the right, displays a helpful SmartHelp panel that gives guidance on the task at hand.
- ✓ Press F1 at any time to reveal a separate Help window, as shown in Figure 2-6. This window provides the typical Windows-style help, complete with a table of contents, an index, and a search feature.

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- Most SmartDraw dialog boxes contain a Help button you can click to display help information specific to that dialog box.
- \checkmark When you hover the mouse over an item on the main toolbar or other toolbar, a ToolTip appears, explaining what the item does.

- Click the Help tab on the main toolbar to summon the Help controls. The following list describes the options available from this tab:
 - *Tech Support:* Opens the SmartDraw technical support Web page, where you can get answers to a variety of questions.
 - *Updates:* Connects you to SmartDraw's automatic update page so you can get the latest updates to the SmartDraw software.
 - *User Guide:* Opens a Web page that lets you download printable documentation for SmartDraw in PDF format or browse it online.
 - *About:* Displays information about SmartDraw, including the version number and the date you installed the software.
 - *License:* Displays the serial number and other information about your SmartDraw license.

Chapter 3

Drawing Shapes and Lines

In This Chapter

- ▶ Using SmartDraw's drawing tools
- Introducing libraries
- Creating basic shapes and lines
- Selecting, duplicating, rotating, flipping, and otherwise manhandling shapes

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▶ Using rulers and grids to create neatly arranged drawings

Shapes and lines are the building blocks of SmartDraw drawings. When you create a drawing from a template, the drawing contains a predefined collection of shapes and lines. But sooner or later you'll find that you have to add your own shapes and lines to your drawings. And you'll have to edit those objects — dragging them to new positions, changing their sizes, rotating them, and so on.

Many of these actions are intuitive in SmartDraw. Some aren't. Either way, this chapter presents the most important techniques for creating and editing shapes, lines, and text objects in your SmartDraw drawings.

Note: This chapter does *not* show you how to apply fancy formatting to your shape and line objects. For that information, see Chapter 6.

Also, this chapter doesn't show you how to add text to SmartDraw shapes. For that information, refer to Chapter 4.

Adding Shapes from the SmartPanel

The easiest way to add a shape to a drawing is to use one of the commands available on the drawing's SmartPanel. Each template comes with its own SmartPanel that includes commands for adding the shapes that are most commonly used with the template's drawing type. For example, Figure 3-1 shows the SmartPanel for a drawing created using a floor plan template. It includes commands for adding shapes typically found in floor plans, such as doors, dimensions, corners, and so on.

	SmartPanel Library X
	Construction Add Single Wall Doors & Windows Door (28") Door (28") Door (28") Wall Opening Wall Openin.
	Dimensions & Area Image: Show Dimensions Image: Heasure Distance Image: Measure Area
	Adjust I ^r i Add Comer
Figure 3-1: The Smart- Panel for a	Create Opening
drawing.	For more help, click the icon to open the SmartHelp panel on the right side of your screen.

To add one of these shapes to the drawing, simply click the shape on the SmartPanel and then drag it onto the drawing.

If you don't find the shape you're looking for on the SmartPanel, you can find more shapes in other places, including the following:

- Scroll down the SmartPanel. The SmartPanel devotes just a small part of its space to listing library shapes — just six shapes are visible in Figure 3-1. You can use the scroll bar to reveal many additional choices. In fact, there are 25 different door and window shapes altogether.
- ✓ Choose a different symbol library on the SmartPanel. Each template comes with multiple shape collections that you can access on the SmartPanel. For example, at the top of the SmartPanel in Figure 3-1 is the Doors & Windows drop-down menu. This drop-down menu shows

which shape collection *(symbol library)* is displayed on the SmartPanel. Besides Doors & Windows, the drop-down menu lists several other libraries: Beds, Lavatories, and Appliances.

Don't be confused between *symbol* and *shape*. They're essentially the same thing, although the term *shape* typically refers to a basic shape such as a rectangle or oval, while *symbol* usually refers to a more complicated object such as a chair or an automobile. We use the terms interchangeably in this book.

✓ Access more symbol libraries from the More Symbols dialog box. You can also choose the More option from the drop-down menu at the top of the SmartPanel, which brings up the More Symbols dialog box shown in Figure 3-2. From here, you can select additional library shapes. The floor plan template, for example, offers 30 additional symbol libraries in the More Symbols dialog box. In all, hundreds of different floor plan shapes are available for your choosing.



To access a shape in one of these libraries, you may need to first install the library (some come pre-installed; others download instantly over the Internet). To do that, simply double-click the library in the More Symbols dialog box. Or right-click the library and choose Install. For

example, if you want to add appliances to a floor plan, you can doubleclick the Appliances symbol library and install it. When you install a library, SmartDraw pauses for a few moments while it downloads the shapes that make up the library from SmartDraw's servers. After you've installed the library, you can use it. (Of course, you'll need to be connected to the Internet for this download to work.)



SmartDraw organizes its symbol libraries into folders. Thus, symbol libraries such as Appliances, Beds, and Bookcases & Cabinets are contained in a folder named Furniture, which is itself contained in a folder named Floor Plans.

✓ Open the Library panel. To see more of the library shapes at once, and to access even more shapes, click the Library tab next to the SmartPanel tab. The Library panel opens, as shown in Figure 3-3. This panel shows the same shapes that are at the top of the SmartPanel tab, but it's expanded so that more of the shapes are visible at once.



If you need to access more than one symbol library at a time, you may want to create a *floating library*. To do that, right-click anywhere within the library and choose the Detach Library command. The library opens in a separate floating window, which you can then drag to any location that you wish. SmartDraw lets you to have as many as 16 floating library windows open at a time.

	SmartPanel Library	×
	Add Symbols	
	Doors & Windows	1
		~
	Door (28") Door (28") Door (28")	
	Door (28") Wall Opening Wall Opening -	-
	Double Door (- Double Door (- Pocket Door	
	Pocket Door Sliding Glass Revolving Door	r
	Swinging Door 30" Single Fol 30" Single Fol	1
Figure 3-3: The Library	48° Double Fol., 48° Double Fol., Window (36°)	
panel.		~

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Drawing Basic Shapes

In addition to adding complex shapes from symbol libraries, you can also add basic shapes — rectangles and squares with straight or rounded corners, ovals, and circles. Here are the steps:

1. On the main toolbar, click the Home tab if it isn't already active, find the Tools group, and click the down arrow next to the Shape button.

Clicking the down arrow reveals a menu with the following choices:

- Rectangle
- Rounded Rectangle
- Oval
- Square
- Circle
- Rounded Square
- 2. Click the shape you want to insert.
- 3. Click your drawing at the location you want the shape to appear.

To change the shape's size, click and drag any of the shape's corners or edge handles.

Drawing Lines

Shape 🔻

Lines play an important role in many types of business graphics. Often, various types of lines are used to show the relationships among shapes in drawings. For example, lines in a flowchart indicate the sequence of steps in a process.

The following sections describe the most common ways to create lines in SmartDraw.

Drawing straight lines

The easiest way to draw a straight line in SmartDraw is to follow these steps:



Line V

- 1. On the Home tab on the main toolbar, find the Tools group, click the down arrow next to the Line button, and then choose Straight Line.
- 2. Click your drawing at the location you want the line to start.
- 3. Click your drawing at the location you want the line to end.

That's all there is to it.

Drawing curved lines

To draw a curved line, follow these steps:

- 1. On the Home tab, find the Tools group and click the down arrow next to the Line button, and then choose Curved Line.
- 2. Click your drawing at the location you want the line to start.
- 3. Click your drawing at the location you want the line to end.

The line appears with three selector handles: one on each end and one in the middle.

4. Grab the selector handle in the middle and drag it to adjust the curvature of the line.

Figure 3-4 shows four different line curvatures drawn with the Curved Line tool.



Lines that you draw with the Curved Line tool are simple arc segments — that is, they're circular. To create more complex curves, use freehand lines as described in the next section.



Figure 3-4: Curved lines.

Drawing freehand lines

The freehand line tool lets you create more complex curves than the Curved Line tool. To use it, follow these steps:



- 1. On the Home tab, find the Tools group, click the down arrow next to the Line button, and then choose Freehand Line.
- 2. Click and hold the mouse button in the drawing where you want the line to start.
- 3. While still holding down the mouse button, drag the mouse wherever you want the line to go.

The freehand line actually consists of one or more separate curved line segments with solid selector handles that mark the start and end of each segment and hollow selector handles that let you adjust the curvature of each segment. Each time you make a major change in direction as you draw the line, SmartDraw begins a new line segment. For example, Figure 3-5 shows the selector handles created with a simple snake-like S shape.



Figure 3-5: handles on a freehand

4. Grab the selector handles in the middle and drag them to adjust the shape of the line.

You can change the start point, end point, or curvature point of each segment independently. With this flexibility, you can almost always craft exactly the curvature you want for the line.

Here are a few points worthy of mention when thinking about freehand lines:

- ✓ If you end the line at the same place that you started the line, SmartDraw converts the line to a filled shape.
- \checkmark You can delete an entire segment of a freeform line by right-clicking the segment you want to delete and choosing Remove Line Segment.
- ✓ You can change the curve type of a segment by right-clicking the segment you want to change and choosing Change Segment Shape. The options are Parabola, Circular Arc, Quarter of an Ellipse, or Straight Line. You'll want to experiment with these options to learn their effects.

Drawing connectors

Connectors are among the best features of SmartDraw. A connector is a line that's attached to a shape on each end. SmartDraw automatically figures out how to route the connector from one shape to the other. If you move one of the shapes, SmartDraw adjusts the connector to maintain the connection. Figure 3-6 shows three shapes connected by two connector lines.



Figure 3-6: shapes with connector

> Before you can create connector lines, you may need to enable the Allow Lines to Link option (it's enabled automatically for some drawing types). To do so, click the SmartDraw button (the large icon in the top-left side of the SmartDraw window), choose Options, select the Allow Lines to Link check box, and click OK.

To create connector lines, start with a drawing that has at least two shapes you want to connect. Then, follow these steps:

🕹 Line 🔻

1. On the Home tab, find the Tools group, click the down arrow next to the Line button, and then choose Shape Connector.

If you want your connector line to be curved rather than straight, choose Curved Connector rather than Shape Connector.

2. Click the first shape you want the line to connect to.

When you click it, click as close as possible to the exact location on the shape where you want the line to attach.

3. Click the second shape you want the line to connect to.

Again, click as close as possible to the spot where you want the line to connect.

4. If you don't like the way the line is routed, click the line to select it. Then, drag the selection handle in the middle of the line to reroute the connector.

Here are some thoughts to ponder concerning connector lines:

- ✓ When you click a shape to attach the connector line to it, the shape's border appears with a bunch of dots called *connector points*. The connector line always connects the shape at one of these points.
- ✓ You can change the connector point that a connector line attaches to by clicking the connector line where it attaches to the shape and then dragging it to a different connection point.
- ✓ You can change the routing of a connector line by clicking the line to select it and then dragging the selection handle that appears at the line's midpoint.

You can find more information about working with connector lines in Chapters 11 and 12, which explain in detail how to create flowcharts and organization charts.

Drawing Polygons

The Polygon Line tool lets you create shapes with an arbitrary number of sides. Figure 3-7 shows several examples of polygons that you can draw with SmartDraw.



Here are the steps to draw a basic polygon:



- 1. On the Home tab, find the Tools group, click the down arrow next to the Line button, and then choose Polygon Line.
- 2. Click the location on your drawing where you want the first side of the polygon to start.
- 3. Click the location on your drawing where you want the first side to end.

SmartDraw draws a line from the point you clicked in Step 2 to the point you clicked in this step.

4. Keep clicking to draw additional sides on your polygon.

Each time you click, another side is added to the polygon.



Don't worry if you don't click in exactly the right spot for each side. Adjusting the exact position of each side of the polygon is easy after you finish the basic polygon shape.

5. To finish the polygon, click at the same point you started the polygon in Step 2.

When you complete the polygon, SmartDraw fills it in with the current fill color. Then the shape is selected so that you can change the shape of the outline.

6. (Optional) If the polygon isn't exactly the right shape, drag the adjustment handles to adjust the shape until it's exactly the way you want it.

You'll find a selection handle at the intersection of each side of the polygon, so you can easily adjust the polygon's shape.

Here are some additional tips for working with polygons:

- Another way to finish a polygon is to simply double-click after you draw the next-to-last side. When you double-click, SmartDraw automatically creates a side from the last point to the first point to close the polygon.
- ✓ The adjustment handles at the intersection of each side let you adjust the position and length of the sides. But the adjustment handles in the middle of each side let you add curvature to the side. The bottom-right polygon in Figure 3-7 shows a polygon with curved sides.



To edit the shape of a polygon later, you must select the polygon, then choose the Edit Shape Outline command, which you can find on the Design tab in the Shape Properties section.

Adding Arrowheads

Just about any line in a SmartDraw drawing can have an arrowhead attached to either or both ends. To add a simple arrowhead to either or both ends of a line, follow these steps:

1. Select the line.

If you want to add arrowheads to more than one line, press Shift or Ctrl to select all of the lines you want to add arrowheads to.



2. Click the Arrowheads drop-down arrow in the Tools group on the main toolbar's Home tab.

A menu with arrowhead choices opens.

3. Select Right, Left, or Both.

The arrowheads are added to the line.

If you don't like the standard arrowheads, select Custom from the Arrowheads drop-down menu to display the Arrowheads dialog box shown in Figure 3-8. You can choose one of 35 different arrowhead styles for each end of the line. In addition, you can change the size and displacement of the arrowhead. (The *displacement* determines whether the arrowhead extends all the way to the end of the line or leaves a little empty space at the end of the line.)



Selecting Shapes

If you happen to be the type that gets everything right on the first attempt, you can skip this section because all of the shapes you draw are perfect the first time, and therefore have no need of editing.

If, on the other hand, you're like the rest of us, you need to know how to edit the shapes you add to your drawings. And the first step in editing any shape is knowing how to select it.

For the most part, selecting shapes in a SmartDraw document is the same as selecting objects in any other program. To select a single object, simply click the object. If a shape is filled with a color, you can click anywhere within the shape. If the shape is just an outline with no fill, you must click on the shape's border to select it. (For more about filled and unfilled shapes, refer to Chapter 6.)

Gelect

You must have the Selection tool activated to select objects. This tool is usually active, but in case it isn't, you can activate it by clicking the Select button on the Home tab on the main toolbar. (If the mouse cursor is a normal arrow pointer, the Selection tool is active.)

You can use any of the following methods to select more than one object:

- ✓ Hold down the Shift or Ctrl key and click each object you want to select.
- Click the arrow beneath the Select button on the Home tab on the main toolbar and then choose Select Multiple. Then click each object you want to select; you don't have to hold down Shift or Ctrl.
- Click anywhere outside of an object, hold down the mouse button, and drag a rectangle around the objects you want to select. All objects inside your box are selected. Note that you must completely enclose an object to select it using this method.

You can select all the objects in your drawing in two ways:

- ✓ Press Ctrl+A.
- ✓ On the Home tab on the main toolbar, click the arrow beneath the Select button and choose All Shapes or All Lines.

Duplicating Shapes

You can create a duplicate copy of any shape in a SmartDraw drawing by selecting the shape and then pressing Ctrl+D. (If you prefer to work from the main toolbar, click the Home tab, click the arrow beneath the Paste button, and then choose Duplicate.)



When you duplicate an item, SmartDraw places the copy in a position that is offset somewhat from the original object. If you move the duplicate object immediately after creating it and then duplicate the object again, the offset of the new duplicate is adjusted based on how you moved the first duplicate. This handy trick makes it easy to create multiple copies of evenly spaced objects arranged in tidy rows.

For example, have a look at the nice array of 99 mugs of beer shown in Figure 3-9.

Figure 3-9: Ninety-nine mugs of beer on the wall. Follow these steps to create an array just like the one in Figure 3-9:

1. Open the Beverages library. (You can find it in the Food group under Clip Art.)

If you aren't sure how to add shapes from a library, see the first section in this chapter.

2. Drag a beer mug to the drawing and resize the mug so that 99 copies of it fit on the page.

Make the beer mug about 0.5" tall. (For information about how to resize a shape, see the section, "Drawing Basic Shapes," earlier in this chapter.)

3. Click the beer mug to select it and then press Ctrl+D to make a duplicate.

The duplicate appears below and to the right of the original.

- 4. Drag the duplicate to a position immediately beneath the original.
- 5. Press Ctrl+D eight times.

You now have a column of ten neatly stacked beer mugs.

- 6. Drag a rectangle around all of the beer mugs to select them.
- 7. Press Ctrl+D again.

This makes a duplicate column of beer mugs, to the right and slightly lower than the original column.

- 8. Drag the entire column up so that it aligns with the top of the original column.
- 9. Click Ctrl+D eight times.

You now have ten columns of beer mugs arranged in a nice, even grid.

10. Click the first mug in the top-left corner to select it, and then delete it.

You now have 99 mugs of beer on the wall!

Rotating Shapes

Remember how all the bad guys' hideouts were slanted in the old *Batman* TV show? SmartDraw lets you give objects in your drawing that same kind of slant.

There are two ways to rotate an object. The first is to rotate the object a specific amount by following these steps:

- 1. Choose the shape that you want to rotate.
- 2. Click the Design tab on the main toolbar, find the Shape Layout group, and click the Rotate button.

A menu of rotation choices that let you rotate the shape in 45 degree increments opens. (The options are 45° , 90° , 135° , 180° , 225° , 270° , and 315° .)

3. Click the rotation option you want.

The shape is rotated according to your selection.

If you want to rotate the shape to a specific angle that isn't an increment of 45 degrees, choose the Custom rotation option. You can enter a specific angle for the rotation in the dialog box.

The faster way to rotate a shape is to grab and drag the shape's *rotate handle*, which is a small dot that appears somewhere within the shape, as shown in Figure 3-10. You can rotate a shape to any angle simply by dragging the rotate handle either clockwise or counterclockwise.



The following steps show you how to use the rotate handle:

- 1. Click the object that you want to rotate.
- 2. Drag the rotate handle in the direction that you want to rotate the object.

As you drag, an outline of the object rotates. When you get the object's outline to the angle you want, release the mouse button, and the object is redrawn at the new angle.



As you rotate the shape using the rotate handle, the rotation angle is constrained by the current grid setting. To freely rotate the object to any arbitrary angle, turn off the Snap to Grid option. For more information, see the section "Using the Ruler and the Grid" later in this chapter.



Flipping Shapes

SmartDraw lets you flip a shape vertically or horizontally to create a mirror image of the object. To flip a shape, follow these steps:

- 1. Select the shape or shapes you want to flip.
- 2. Click the Design tab, find the Shape Layout group, click the Flip button, and then choose Flip Horizontally or Flip Vertically.

Overlapping Shapes

Whenever you have more than one shape on a page, the potential exists for objects to overlap one another. Like most drawing programs, SmartDraw handles this problem by stacking the shapes. The first shape that you draw is at the bottom of the stack, the second shape is on top of the first, the third is atop the second, and so on. If two shapes overlap, the shape that's highest on the stack hides the shape beneath it.

So far, so good — but what if you don't remember to draw the shapes in the correct order? What if you draw a shape that you want to tuck behind a shape that you've already drawn, or what if you want to bring an existing shape to the top of the pecking order? No problem. SmartDraw lets you change the stacking order by moving shapes toward the front or back so that they overlap just the way you want.



Don't confuse overlapping objects with SmartDraw layers, which let you create entire collections of shapes that overlap other collections. For more about working with layers, see Chapter 9.

The Design tab provides two controls that let you move a shape forward or backward in the stack order:

- ✓ Bring to Front: Brings the chosen shape or shapes to the top of the stack. Note that this button has a down arrow next to it.
- ✓ Send to Back: Sends the chosen shape or shapes to the back of the stack.



Stacking problems are most obvious when objects have fill colors. If an object has no fill color, objects behind it show through. In this case, the layering doesn't matter as much. But if one or both of the objects have a fill color, the object that is higher in the stacking order will overlap objects behind it.

For example, have a look at the three examples in Figure 3-11. In the first example, you can't tell whether the square or the circle is higher in the stacking order because neither has a fill color. But in the second example, you can tell that the circle is on top, and you can tell that the square is on top in the third example.



For more information about fill colors, see Chapter 6.

Note that sometimes you have to be clever with the Send to Back and Send to Front commands to get the exact effect you want.

Grouping Shapes

A *group* is a collection of shapes that SmartDraw treats as though it were a single shape. Using groups properly is one key to putting simple shapes together to make complex pictures without becoming so frustrated that you have to join a therapy group.

To create a group, follow these steps:

1. Choose all shapes that you want to include in the group.

Hold down the Ctrl or Shift key and click each of the shapes, or hold down the mouse button and drag a rectangle around all the shapes you want to select.



2. Right-click one of the selected objects and then choose Group Objects from the menu that appears.

You can also find the Group button on the Design tab on the main toolbar.

To take a group apart so that SmartDraw treats the shapes as individuals again, follow these steps:

- 1. Right-click the group you want to break up.
- 2. Choose Ungroup Objects.

SmartDraw lets you create groups of groups. This capability is useful for complex pictures because it lets you work on one part of the picture, group it, and then work on the next part of the picture without worrying about accidentally disturbing the part that you've already grouped. After you have several such groups, select them and group them. You can create groups of groups of groups and so on, *ad nauseam*.



Note that the Ungroup command ungroups only one level of this grouping hierarchy at a time. For example, suppose you draw two rectangles and group them, then draw two ovals and group them, then combine the two groups to create a single group made up of two rectangles and two ovals. If you then use the Ungroup command, the group reverts to one group of two rectangles and another group of two ovals. You must undo all of the groupings to completely revert to the individual, ungrouped shapes.

Precisely Setting a Shape's Position and Size

Most of the drawing you do with SmartDraw is with the mouse. You use the mouse to drag shapes around on the page to place them exactly where you want them, and you use the mouse to change the size of individual shapes.

However, for absolute precision, right-click the shape whose size or position you want to set and choose the Position and Size command from the menu that appears. The Position and Size dialog box opens, as shown in Figure 3-12.

	Position and Size	8
Figure 3-12: The Position	Bostion Size Left 0.90 Bight 2.60 Width 1.70 Lop 1.75 Bottom 3.75 Height 2.00 Changing the Bight and Bottom Positions changes The Object's Size The Object's Position Changing	OK Cancel <u>H</u> elp
dialog box.	Units All values are in Inches.	

The way this dialog box works is a little confusing, so hang with us here as we explain.

To change the exact position of a shape, change the value in the Left or Top text box. These text boxes control the exact position of the top-left corner of the shape.
To change the size of the shape, change the values in the Width and Height text boxes. These two text boxes control the exact size of the shape.

The confusion comes about when you look at the text boxes labeled Bottom and Right. These two text boxes control one of two things, depending on which of the two options you select in the Changing the Right and Bottom Positions Changes section of the dialog box.

- ✓ If The Object's Size is the selected option, changing the right or bottom setting leaves the top-left corner of the shape exactly where it is and adjusts the shape's size to match the right or bottom position you set.
- ✓ If The Object's Position is the selected option, changing the right or bottom setting leaves the size of the object unchanged; instead, the position of the object is adjusted so that the bottom-right corner of the object is at the position you specify.

Confused? Not to worry. In most cases you can simply ignore the Right and Bottom text boxes. Use the Left and Top boxes to set the shape's position and the Width and Height boxes to set the shape's size.

Here are a few other pointers about adjusting the size and position of your shapes:



- ✓ If you want to precisely adjust a shape's size but not its position, there's no need to call up the Position and Size dialog box. Just select the shape, click the Design tab, and use the Width and Height fields to set the size you want.
- ✓ If you want several objects to be the same size, select all of the objects, click the Make Same button on the Design tab, and choose Make Same Height, Make Same Width, or Both from the menu that appears. (The last shape you select is the one that SmartDraw uses to determine the size for the other selected shapes.)
- If you want to adjust the position of shapes, use the alignment tools described in the next section.

Line 'em Up

Nothing looks more amateur than shapes that look like they were supposed to be lined up neatly in a row, but are just a little bit off. Fortunately, the Design tab on the main toolbar includes an Align button that brings up a menu with the following commands:

LeftsCenters

- 🖊 Rights
- 🖊 Tops
- 🛩 Middles
- ✓ Bottoms

The first three commands align items horizontally; the next three align items vertically.

To use any of these commands, first select the shapes you want to align. Then, click the Align button on the Design tab and choose the alignment option you want.



The last shape you select is the one that all the others adjust themselves to.

Space 'em Out

One more way to adjust the position of shapes is to distribute them evenly. For example, suppose you've drawn five rectangles, but you haven't been too careful about the spacing between them. To distribute them all evenly, select the five rectangles, click Space Evenly on the Design tab, and choose Space Evenly Horizontally, Space Evenly Vertically, or Both from the drop-down menu that appears.

When you distribute shapes horizontally, SmartDraw leaves the leftmost and rightmost shapes where they are. Then, it adjusts the position of any shapes that fall between the leftmost and rightmost shapes so that the spacing among them is even.

When you distribute shapes vertically, the topmost and bottommost shapes stay put, while any shapes between them are adjusted so that the vertical space between them is the same.

Using the Ruler and the Grid

SmartDraw includes two closely related tools to help you arrange your shapes into a well-ordered drawing: the rulers and the grid. The following sections explain how to use these helpful features.

Using the rulers and guides

In Chapter 2, you find out how to turn the rulers on and off by clicking the Ruler button on the Work Area toolbar, which is just above the drawing area. The rulers provide an easy way to gauge the size and position of shapes on your drawing.

Besides simply showing and hiding the ruler, there are a couple of useful tricks you should know:

- ✓ By default, the rulers align themselves with the top-left corner of your drawing. In other words, the zero on the horizontal ruler is placed at the left edge of your drawing, and the zero on the vertical ruler is placed at the top. You can change the zero position by double-clicking anywhere in either of the rulers. For example, if you want the zero on the horizontal ruler to be right in the middle of an 8¹/₂ x 11 inch page, double-click at 4.25" on the horizontal ruler.
- ✓ If you click one of the rulers and hold down the mouse button, a line called a *guide* appears to help you line up objects in your drawing with the ruler. If you click the ruler at the top of the drawing area, a vertical guide line appears; if you click the ruler to the left of the drawing area, a horizontal guide line appears. Then, if you move the mouse while holding down the button, the guide line follows your mouse movement.



Here's a cool trick: Click in the small empty box at the top-left corner of the drawing area, where the two rulers meet. Then, hold down the mouse button and drag the mouse into the drawing area. When you do, two guide lines appear, creating cross-hair guide lines that intersect at the mouse position. Figure 3-13 shows these cross-hair guides in action. Here, the cross-hair guide line confirms that a rectangle is positioned at the 1" mark on both rulers.

Showing the grid

The ruler is helpful for aligning objects, but you may want to turn on the grid for more precise control. The *grid* is an imaginary framework of dots that provides alignment points for the objects in your drawing. You can show or hide the grid: Click the Page tab on the main toolbar, find the Rulers and Grid group, and select the Show Grid check box. Figure 3-14 shows what the drawing area looks like with the grid displayed.



The grid dots aren't actually a part of your drawing, so they don't appear when you print your drawing or export it into another program. They exist simply to make the task of lining things up a bit easier.

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The grid always exists "behind the scenes" whether you are viewing it or not. The Show Grid command simply makes it visible to you.

Snapping to the grid

If you want to force objects in your drawing to line up with the grid, you can. Click the Page tab, find the Rulers & Grid group, and select the Use Snaps check box. When this check box is selected (and it is automatically in some drawing types), any object you draw or any object you move automatically snaps itself to the nearest grid point.

By default, shapes snap into place so that the top-left corner of the shape aligns with the nearest grid point. If you prefer, you can change this behavior so that the snap-point is the center of the shape rather than the top-left corner. To do so, click the Snaps button on the Page tab (in the Rulers and Grid group), and choose Snap Center of Shape.



The grid doesn't have to be visible for the snaps to be on. In other words, if you select the Use Snaps check box but leave the Show Grid check box deselected, objects still snap to the grid even though the grid isn't visible. (In fact, this is SmartDraw's default configuration for grids.)

Changing grid and ruler settings

If you want, you can change the size and scale of the rulers and the grid. The easiest way to do that is to click the Scale button. (You can find it on the Page tab in the Rulers & Grid section.) Click the Scale button to reveal a menu of the following scale options:

- ✓ Standard: This option displays a standard, full-sized, 1" scale ruler, scaled so that 1" on the screen equals 1" in the drawing. In other words, the ruler is scaled one-to-one.
- ✓ Floor Plan (Standard): This option scales the ruler down so that 1" on the screen equals 4 feet in the drawing. This is the standard scale used to draw floor plans.
- Metric: This changes the ruler to a metric ruler, showing 1 centimeter. The scale is 1:1, so that 1 centimeter on the screen equals 1 centimeter in the drawing.
- ✓ Floor Plan (Metric): This scales the ruler so that 1 centimeter on the screen equals 0.5 meter in the drawing.

If none of these predefined scales work for you, choose Custom from the Scale menu to display the Set Rulers and Grids dialog box, shown in Figure 3-15. (Another way to display this dialog box is to right-click the ruler and then choose Define Rulers and Grids from the menu that appears.)

	Set Rulers And Grids	×
	Cale: One Com on the screen equals 4.000 Foot ▼	OK
	Set the position of 0 on the rulers (the origin):	
	Horizontal Fluler: Place 0 at 0.00 Feet units from the left edge.	Help
	Vertical Ruler: Place 0 at 0.00 Feet units from the top edge.	
	Hint: You can also set the zero position of a ruler by holding the Ctrl key down and clicking in the ruler. Double-clicking in a ruler works too. You can set the zero position back to the top-left by double-clicking in the corner where the rulers meet.	
	Preview	
	Select the number of 0,	
Figure 3-15:	each inch on the screen	
Rulers and	Hide and Show → I Check here to hide the rulers	
box.	Snap the C Center (* Top-Left of a shape to the grid	

You can specify the following settings from the Set Rulers and Grids dialog box:

- ✓ Scale: The controls in the Scale section let you set the scale. You can adjust the scale so that any number of inches or centimeters on the screen equals any number of inches, feet, millimeters, centimeters, or meters in the drawing.
- ✓ Set the Position of 0 on the Rulers (the origin): The controls in this section let you set the zero-position for the horizontal and vertical rulers.
- ✓ **Divisions:** This setting lets you set the number of tick marks that appear in each inch or centimeter of the ruler.
- ✓ Hide and Show: This section contains a check box that you can use to hide the ruler.
- **Snaps:** This section contains option buttons that set whether to snap the top-left corner or the center of shapes to the grid.

Chapter 4 Working with Text

In This Chapter

Inserting text into your drawings

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- Adjusting the font and other text format settings
- Creating bullets
- Eliminating spelling errors from your drawings

Pears ago, artists and draftsmen used a device known as a Leroy Lettering Set to mechanically add text to drawings. The Leroy set consisted of three components: a set of stencils that contained the shapes of the letters to be formed, a special stylus that the user operated to trace the shape of the letters from the stencil, and an ink pen that transferred the traced shape to the paper. (If you read comic books when you were a kid especially those published by EC Comics — you've seen plenty of examples of Leroy lettering.)

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Fortunately, adding text to drawings in SmartDraw is much easier. You don't have to pull out the Leroy set and trace letters with the stencils. Instead, you just click the Text tool on the Home tab, click the drawing at the location where you want to add text, and start typing.

Well, of course there's a little more to it than that. Otherwise, we wouldn't have devoted this entire chapter to the subject.

Note that besides the basic text-editing features presented in this chapter, SmartDraw also lets you create text organized as tables. For more information about using tables, see Chapter 7.

Adding Text to a Drawing

There are several ways to add text to a drawing, as described in the following sections.

Adding text to a shape or symbol

Shapes can have their own text. To add text to a shape, double-click the line or shape. The mouse pointer changes to a text cursor. Then, you simply type your text. When you're finished, just click anywhere outside of the shape.



Many symbols inserted from libraries can also have their own text. To find out, try double-clicking the symbol. If a text cursor appears, you're in business. If not, that particular symbol isn't designed to accommodate text.

Adding text to a line

Lines can also have text. To add text to a line, double-click the line and start typing.

SmartDraw provides the following alternatives for aligning text with lines, as shown in Figure 4-1:

- ✓ Horizontally: By default, text attached to a line is displayed horizontally, as shown in the first example.
- ✓ Follow the course of the line: The second example in Figure 4-1 shows the text following the line. To do so, select the line (not the text itself), and then, on the Home tab, find the Paragraph group, click the Direction button, and choose Along the Direction of the Line.



The text won't follow the direction of the line if the line is curved.



Figure 4-1: Creating text on lines. ✓ Oriented with the line direction: The third and fourth examples in Figure 4-1 show the effect of the text alignment options when text is oriented with the line direction. For more information about setting the alignment, see the section "Aligning Text" later in this chapter.

Creating a text object

You can add text to any arbitrary location on your drawing by following these steps:

- 1. On the main toolbar, click the Home tab if it isn't already active, find the Tools group, and click the Text tool.
- 2. Click in the empty background of the drawing where you want to add text.

Be careful not to click on or inside a shape, or your text will become attached to it.

The mouse pointer changes to a text cursor.

- 3. Type your text.
- 4. When you finish, click anywhere outside of the text.

If you want to move the text to a new location, select it and drag it anywhere you want. Also, you can edit the text by double-clicking it.



Text added using the Text tool is actually contained in a rectangle shape with an invisible border and no fill color. SmartDraw sometimes refers to these rectangles as *text objects* or *background text*. Consider these two important differences between text objects and ordinary rectangle shapes:

- ✓ If Use Snaps is turned on, text objects align with the grid at the baseline of the text, not at the upper-left corner or center of the rectangle.
- If you delete all of the text in a text object, the text object is deleted, so you don't have empty invisible rectangles cluttering your page.

Editing Text

To edit text that you've already added to your drawing, double-click the text. The mouse pointer changes to an insertion point, and you can then edit the text using the techniques found in most text-editing programs. For example, you can use the Backspace or Delete key to obliterate text, and you can insert text by clicking and typing where you want the new text to appear. You can also select text by dragging the mouse, or you can select individual words by double-clicking the words. SmartDraw also includes a Find and Replace command like most other textediting programs do. You can find these commands on the Page tab, in the Find & Replace group. You can also summon the Find and Replace dialog boxes by pressing Ctrl+F for Find and Ctrl+H for Replace.

Because these text-editing techniques are widely used in many different Windows programs, we won't bore you with details of how to use them in this book.

Setting Text Fonts

The Font group of the Home tab, shown in Figure 4-2, includes controls that let you specify the typeface, size, color, and other properties of your text.

Figure 4-2: The Font group on the Home tab.

▼ 10 ▼ Verdana BIUX, x' A- Ω Font

Many font formatting options also have handy keyboard shortcuts. The following table lists the controls in the Font group along with their equivalent keyboard shortcuts.

Button	Keyboard Shortcut	Formatting Command
Verdana 🔻	(none)	Font
10 🔻	(none)	Size
B	Ctrl+B	Bold
Ι	Ctrl+I	Italic

Button	Keyboard Shortcut	Formatting Command
U	Ctrl+U	Underline
\mathbf{X}_{2}	(none)	Superscript
×	(none)	Subscript
<u>A</u> -	Shift+F3	Color
Ω	(none)	Insert symbol

Most of the keyboard shortcuts for formatting text that work in other programs work in SmartDraw as well.

Note also that you can change the text color by clicking the Color button in the Font group. Clicking this button reveals a large menu that contains many options for setting colors, including transparency options, gradient fills, and texture fills. These options are described in detail in Chapter 6.

If the Font group on the Home tab doesn't provide enough options for formatting your text, you can call up the Font dialog box for additional options. (See Figure 4-3.) To summon this dialog box, just select the arrow at the bottomright corner of the Font group.



Inserting a Special Symbol

The Text Symbol button, found in the Font group on the Home tab, lets you insert a special symbol into your text. To insert a symbol, click the Text Symbol button. The Insert Symbol dialog box shown in Figure 4-4 appears. You can then insert any of the symbols shown in the dialog box by double-clicking the symbol.



You can choose which font to select symbols from by selecting the font from the Font drop-down list. Initially, this list includes just two options: Normal Text and Symbol. However, you can add more fonts to the list by clicking the Add Font button. (You can use any font that is installed on your computer here.)

Biting the Bullet List

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You can create bullet lists by clicking the Bullets button in the Paragraph group on the Home tab. The Bullets menu opens, which offers eight different styles of bullets.

To apply bullets to one or more paragraphs within a single shape, follow these steps:

- 1. Double-click the shape to edit the text.
- 2. Select the paragraph or paragraphs you want to apply the bullets to.
- **3.** Click the Bullets button and then click the bullet style you want to apply.

To apply a bullet style to all of the paragraphs in a shape, just select the shape itself — there is no need to double-click to edit the text. Then click the Bullets button to apply the bullet style you want to use.

Aligning Text

The Text Alignment button in the Paragraph group on the Home tab lets you align text both horizontally and vertically. The following table shows how each of these buttons aligns text.

Button	Horizontal Alignment	Vertical Alignment
=	Left	Тор
=	Center	Тор
1	Right	Тор
=	Left	Middle
=	Center	Middle
=	Right	Middle
=	Left	Bottom
=	Center	Bottom
=	Right	Bottom



These alignment options are especially useful for aligning text attached to line objects. In particular, the vertical alignment (Top, Middle, or Bottom) option determines whether the text appears above the line, below the line, or centered over the line.

Spacing Your Lines



The Line Spacing button in the Paragraph group on the Home tab lets you set the line spacing for text. This setting has no effect on text that fits on a single line, but if the text is large enough to require two or more lines, this setting affects the amount of vertical space between the lines.

To set the line spacing, click the Line Spacing button, then choose one of the three provided options: 1 for single-spacing, 1.5 to add an extra half-line space between each line, or 2 for double-spacing.

Checking Your Spelling

If you were ever voted Worst Speller in school, you'll appreciate the spell checker that comes with SmartDraw. The spell checker in SmartDraw is so smart that it knows that you've made a spelling mistake almost before you make it. The spell checker watches over your shoulder as you type and helps you correct your spelling errors as you work.

When the spell checker observes that you've made a spelling mistake, it underlines the error with a wavy red line. You then have several options:

- ✓ Make the correction. You can retype the word using the correct spelling.
- Let SmartDraw help. You can right-click the word to call up a menu that lists suggested spellings for the word. In most cases, SmartDraw can figure out what you meant to type and then suggest the correct spelling. To replace the misspelled word with the correct spelling, just click the correctly spelled word on the menu.
- ✓ Ignore the misspelling. Sometimes, you want to misspell a word on purpose (for example, if you run a restaurant named The Koffee Kup). More likely, the word is correctly spelled, but SmartDraw just doesn't know about the word. In that case, right-click the word and choose Ignore All. The misspelling is ignored throughout the drawing but only for the current drawing. If you want to ignore it for all your drawings, you must choose Add.
- Add the word to the dictionary. If you've discovered a word that isn't already in SmartDraw's extensive dictionary, and you're absolutely positive that you spelled the word correctly, right-click the word and click Add. The word is added to the dictionary so that it won't be flagged as a spelling error in the future.

Have SmartDraw autocorrect the word. If you find that you make the same spelling errors over and over again, right-click your misspelling and choose AutoCorrect. Then, SmartDraw automatically corrects the spelling error for you whenever you type the misspelled word.



The spell checker can't tell you when you've used the wrong word but spelled it correctly. For example, if you type *dime navels* instead of *dime novels*, the spell checker won't help you because *navels* is a legitimate word. Cheap literature might be a bad thing, but cheap citrus certainly is not.

If you want more precise control over how the spell checker works, rightclick any misspelled word and choose Spelling from the menu that appears. The Check Spelling dialog box opens, as shown in Figure 4-5. From this dialog box, you can manually check the spelling of all the words in your drawing. In addition, you can click the Options button to set custom spell-checking options, and you can use the Dictionaries button to add or remove words from the spell-checking dictionary.

	Check Spelling	
	Not in Dictionary: Girll	Ignore Al
Figure 4-5:	Suggestions:	∆dd
The Check	Gill Girl	Change Change All
Spelling dialog box	Add words to:	Suggest
alalog box.	Undo Options Dictionaries Help	Cancel

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Chapter 5 Printing Your Drawings

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In This Chapter

- ▶ Using the print command
- Setting print options
- Previewing your printouts
- Getting your drawings professionally printed

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The Print command. The Printmeister. Big document comin' up. Printin' some pages. The Printorama. The Mentor of de Printor. Captain Toner of the Good Ship Laseroo.

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Don't worry — when you print a SmartDraw drawing, no one's waiting to ambush you with annoying one-liners like that guy who used to be on *Saturday Night Live*. Just a handful of boring dialog boxes with boring check boxes. Point-point, click-click, print-print.

Printing a Drawing

To print a SmartDraw drawing, you can choose one of the following methods:

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- Click the Print button on the Single-Click toolbar at the top-left side of the SmartDraw window.
- ✓ Click the SmartDraw button and choose Print⇔Print.

Either way, the Print dialog box opens, as shown in Figure 5-1.

For most drawings, you can safely ignore most of the settings in this dialog box. Just make sure the correct printer is selected and then click OK. Your drawing is printed on the selected printer.

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Printing can be es-el-oh-double-ewe, so don't panic if your document doesn't start printing right away. Some SmartDraw drawings are very demanding on the printer, so sometimes the printer has to work for a while before it can produce a finished page. Be patient. The Print dialog box has every intention of granting your request.

Changing Printers

If you're lucky enough to have two or more printers at your disposal, you can use the Name field to pick which printer you want to use. You must first successfully install each printer in Windows — a topic beyond the reach of this humble book but that you find plenty of information about in the appropriate version of Andy Rathbone's *Windows For Dummies* (Wiley Publishing).

Printing Part of a Drawing

If your entire drawing fits on a single page, the settings in the Print Range section are of no consequence. But for larger drawings, you can use the Print Range settings to specify which pages you want to print. The choices are

- ✓ All: Prints the entire drawing.
- ✓ Pages: Lets you select specific pages for printing. You can print a range of pages by typing the beginning and ending page numbers, separated by a hyphen, as in 5-8 to print pages 5, 6, 7, and 8. Or you can list individual pages, separated by commas, as in 4,8,11 to print pages 4, 8, and 11.
- ✓ Selection: Prints just the pages that contain the selected objects. First, select the parts of the drawing you want to print. Then call up the Print command, select the Selection radio button, and click OK.

Printing More than One Copy

The Number of Copies field in the Print dialog box lets you print more than one copy of your document. You can click one of the arrows next to this field to increase or decrease the number of copies, or you can type directly in the field to set the number of copies.

If the drawing requires more than one page, a Collate check box appears beneath the Number of Copies field. If you select this box, SmartDraw prints each copy of your document one at a time. In other words, if your drawing consists of ten pages and you select three copies and select the Collate check box, SmartDraw first prints all ten pages of the first copy of the document, then all ten pages of the second copy, and then all ten pages of the third copy. If you don't select the Collate check box, SmartDraw prints three copies of the first page, followed by three copies of the second page, followed by three copies of the third page, and so on.



The Collate option saves you from the chore of manually sorting your copies. If your document takes forever to print because it's loaded down with heavyduty graphics, however, you can probably save time in the long run by deselecting the Collate check box. Why? Because many printers are fast when printing a second or third copy of a page. The printer may spend ten minutes figuring out how to print a particularly complicated page, but after it figures it out, the printer can print additional copies in just a few seconds. If you print collated copies, the printer must labor over each page separately for each copy of the document that it prints.

Using the Print Preview Command

The Print Preview command lets you see how your pages will appear before committing them to paper. To use this command, click the SmartDraw button in the upper-left corner of the window and then choose Print=>Print Preview. A preview of the printed page appears as shown in Figure 5-2.

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When you're satisfied that the printout will be to your expectations, click the Print button to bring up the Print dialog box. Then, you can click Print to print your drawing. If you discover a mistake in your preview, you can close the preview by clicking the Undo button on the Single-Click toolbar.

Setting Print Options

The Options section of the Print dialog box lets you set several options that affect how the drawing is printed. Here are your options:

- Print on One Page: This box forces the entire drawing to be printed on a single page. If the drawing is too large to fit on a single page, SmartDraw scales the entire drawing down to make it fit.
- Scale up to Fit Page: This option is sort of the opposite of the Print on One page option. If the drawing is smaller than a single page, this option increases the size of the drawing so that it fills the printed page.

Print to Scale: This option lets you adjust the size of the printed drawing. Selecting this option brings up the Set Printing Scale dialog box shown in Figure 5-3. You can use this dialog box to set the scale at which to print your drawing.

	Set Printing Scale	×
	Adjust Scale When you print you can scale your drawing by a fixed percentage or to fit on a specific muniber of pages.	OK Cancel
Figure 5-3:	⑦ Adjust toi 100 ▼ %	Help
The Set	C Adjust so. 1.00 Inches print as one Inches	
Printing Scale	C Fit To: 1 pages wide	
dialog box.	⊂ Fit Tα: 1 = ±1 pager tall	

- ✓ Print the Grid: If you select this option, the drawing grid is printed along with your drawing. You'll usually want to leave this option turned off, but there may be times when you want the grid printed along with your drawing.
- ✓ Print Page Footers: This option prints a footer at the bottom of every printed page. The footer contains the name of the drawing, the page number, and the date and time. If you want to change the footer position or font, click the Define Footer button (which magically appears when you select the Print Page Footers option) to bring up the Define Footer dialog box shown in Figure 5-4.

	Define Foote	r		×
	Position.	-	These selections move	ОК
Figure 5-4:	C Bottom+ 1/	د '4''	bottom of the printable	Cancel
The Define		he page	area of the page in 174" steps.	Help
Footer dialog box.	Eont	Hint: Changi affects onc you	ng the footer settings all drawings, not just the u are about to print.	

Setting the Page Layout

The Page tab on the main toolbar contains a Page Setup section that includes several tools you can use to set the basic layout of the pages that make up your drawings. These tools are described in the following sections.

Setting the orientation

Orientatio

The Orientation button lets you choose one of two page orientations:

- ✓ Portrait: Orients the paper in an upright position, where the height is greater than the width. This is the default orientation for SmartDraw drawings.
- Landscape: Orients the paper sideways, so that the width is greater than the height.

Setting margins

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To set the size of the page margins, use the Margins button. It lets you choose from the following options:

- ✓ Normal: ¹/₂" margins.
- ✓ Narrow: 1/4" margins.
- ✓ Wide: 1" margins.
- ✓ Printer Minimum: Sizes the margins to the smallest that your printer can manage.
- Custom: Brings up the Page Setup dialog box, shown in Figure 5-5. Among other things, this dialog box lets you set the page margins to any value you wish.



The Page Setup dialog box is remarkably similar to the Print dialog box, but it includes a few additional settings. Specifically, the Page Setup dialog box lets you choose the paper size and set the margins.

Printing multi-page drawings

The Page Setup dialog box (shown in Figure 5-5) also includes options that are useful when printing drawings that are too large to fit on one page. By default, SmartDraw squeezes your entire drawing onto a single page. However, if you deselect the Print on One Page option in the Page Setup dialog box, SmartDraw will print as many pages as are actually required by the drawing. When you deselect Print on One Page, SmartDraw adds dashed lines in the main drawing area to show where the actual page boundaries fall.



The Page Setup dialog box also includes an option that adds a $^{1/16}$ " overlap area between pages when you print drawings that won't fit on a single page. This feature is useful when you intend to paste or tape the printed pages together.

Using a Printing Partner

If you want your SmartDraw graphic to be professionally printed, click the Use Printing Partner button at the bottom of the Print dialog box. Your default Web browser opens and displays the Mimeo.com Web site, as shown in Figure 5-6.

From this Web site, you can order copies of your drawing professionally printed and delivered via Federal Express the next day.

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<u>Part II</u> Embellishing Your Graphics



In this part . . .

The chapters in this part are devoted to helping you create fantastic-looking drawings. We start with tips for applying color and design themes to your drawings. Then, we launch into other refinements, such as adding tables and images to your slides and working with layers.

Chapter 6

Using Themes, Styles, and Effects

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In This Chapter

- ▶ Using themes
- Formatting shapes with fills, gradients, textures, and hatches
- Playing with lines
- Adding special effects

One of the most bothersome — but important — parts of creating any type of business graphic is making sure that the graphic not only conveys the information you want, but that it looks good while doing so. With most graphics programs, you're on your own when it comes to adding the essential aesthetic quality to your drawings. Not so with SmartDraw: SmartDraw includes many tools that are designed to help you create goodlooking drawings.

This is not to say that you can't create unattractive drawings with SmartDraw. You certainly can. However, SmartDraw does everything it can to steer you away from graphic doom. One of the most important features in this regard is its predefined themes, which can transform the entire look of your drawing with just a single mouse click.

This chapter starts by showing you how to work with themes. Then, it shows you how to change the look of individual elements of your drawing by changing colors and applying special effects to your shapes and lines.

Specifically, you find out how to set three aspects of a shape's appearance:

- ✓ Fill, which controls the appearance of the interior of closed shapes like rectangles, circles, and polygons. The possibilities for fill settings include solid colors, gradient fills, textures, and hatching patterns.
- ✓ Line, which controls the appearance of lines both separate line objects and the lines that define the boundaries of shapes. Line settings include the line thickness and dashing pattern, plus color, gradient fills, textures, and hatching patterns.
- ✓ Effects, which applies special graphic effects to shapes such as shadows, reflections, glow effects, bevel and gloss, and perspective.

Note that all of the tools discussed in this chapter are located on the main toolbar's Home tab. Specifically, the tools covered here are in the Theme and Shape Style groups.

Formatting the Easy Way with Design Themes

To make up for the sad fact that most of us flunked art in school, SmartDraw hired teams of artistically minded designers to come up with predefined color combinations and other design elements. It then bundled these combinations into *themes*, which you can apply to your drawings with just a few mouse clicks.

Color Plate 3 shows the effect that applying a theme can have on a SmartDraw drawing. The only difference between the two organization charts presented is a theme.

Applying a theme

To apply a theme, simply click the theme you want to apply in the Theme group on the Home tab. If the theme you want to use isn't visible, use the scroll buttons to the right of the theme previews to scroll forward or backwards through the list of available themes.

You can click the down arrow at the bottom-right side of the Theme group to display the entire theme gallery, as shown in Figure 6-1. The Categories menu at the bottom of the gallery lets you choose which of three different theme galleries to display: Business, SmartDraw 2008, or Floorplan.

Here are some important things to keep in mind when you use themes:

- Themes control the fill, line, and effect settings used for all objects in the drawing, including shapes, lines, text, and the drawing background. Thus, when you apply a theme, the fill, line, and effect settings for every object in the drawing are changed to those specified by the theme.
- ✓ After you apply a theme, you're still free to manually change the fill, line, and effect settings for any object in the drawing. However, if you change these settings for an object, those settings revert to the theme setting if you later apply a theme to the drawing. In other words, changes you

make to an object's fill, line, and effects settings aren't permanent — that is, unless you override the theme settings as described in the next section.

	Buit-In		
	Bonthic	Coastline	Coniferous
	Default	Desert	Littoral
	Mangrove	Neritic.	Pelagic
	Pond	Riparian	Savanna
	Shrubland	Talga	Temperate
Figure 6-1: The Theme	Tuncha		
gallery.	Categori	105	•

Belay that theme setting!

In most cases, applying a theme is the best way to ensure that your drawings have an attractive and consistent appearance. However, you can override the color and fill effects applied by themes for specific objects. For example, you can easily change the color for one or more shapes in your drawing by following the steps outlined in the section "Filling Your Shapes" later in this chapter.

Unfortunately, if you then change your mind about the basic color scheme for the entire drawing and decide to apply a different theme, the shapes you applied the custom color to are reset to the color dictated by the theme. In other words, your customization of those shapes is lost.

To avoid this fate, you can use the Freeze Properties command for a given shape to specify that its properties shouldn't be changed, even when a new theme is applied. Here are the steps:

- 1. Select the shape or shapes whose properties you want to freeze.
- 2. Right-click one of the shapes and choose the Freeze Properties command.

The Freeze Properties dialog box, shown in Figure 6-2, appears.

	Freeze Properties		×
	Freeze the following properties		ОК
	Ell Color	Une or Border Color	Cancel
Figure 6-2:	Fill Texture	Line or Border Thickness	
The Freeze	Shadows and Glow	Line or Border Pattern	
Pronerties	Effects	T Arrowheads	
dialog box.	Text Properties		
	1		

3. Select the check boxes corresponding to the properties you want to freeze.

You can freeze the following properties:

- Fill Color
- Fill Texture
- Shadows and Glow
- Effects
- Text Properties
- Line or Border Color
- Line or Border Thickness
- Line or Border Pattern
- Arrowheads

For example, to ensure that the color isn't changed even when you apply a new theme, select the Fill Color option.

4. Click OK.

You're done. You can now apply a new theme to the drawing without changing the color of the shape or shapes you selected.



Freezing the properties of a shape also prevents you from manually adjusting the shape's properties. For example, if you freeze the Fill Color properties for a shape, you can't change the fill color manually. You must unfreeze the shape's properties before you can make any other changes. (To unfreeze a property, just right-click the object and choose Freeze Properties again, then deselect the properties you want to unfreeze.)

Less is more

Although it's great to have all of the design capabilities that come with SmartDraw available at your fingertips, there's also an inherent danger: The temptation to go overboard. Much like the novice presenter who discovers the potentials of PowerPoint and uses every transition and animation effect imaginable, it's possible to overdo a graphic. Consider an example of a marketing diagram. The following figure is a simple, straightforward diagram created directly from one of SmartDraw's built-in templates.



If you decided to apply almost every formatting option, you'd end up with a graphic similar to the one in the following figure.



The size and shape of all elements in this new version of the drawing are the same. The font is different, with fill textures and effects applied. These changes transformed a graphic that was originally crystal clear to one that is now next to impossible to figure out.

So what's the lesson here? *Do* use the special effects and *do* be creative with the tools you use to communicate your thoughts. But *don't* over-use them. Remember that often, less is more.

Filling Your Shapes

The Fill command, located in the Shape Style group on the Home tab, lets you control how objects are filled. Essentially, this command lets you dump colors and patterns inside of your shapes. There are several types of colors and patterns that you can dump in. The simplest is a solid color. But you can also create a gradient fill, apply a texture, or use a hatch pattern. Figure 6-3 shows examples of these types of fills.



When you click the Fill button, the menu shown in Figure 6-4 appears. The following sections explain how to use the many commands that appear on this menu.

Color Plate 4 shows off these effects.



Pouring color into a shape

The easiest type of fill is a simple solid color. You can set a solid color by clicking the Fill button (in the Shape Style section of the Home tab) and then choosing one of the colors that appears on the resulting menu. The Fill menu includes three groups of colors:

- **Recent Colors:** These are colors that you've recently used.
- ✓ Theme Colors: These are colors that are part of the theme currently applied to the drawing.
- Standard Colors: These colors include red, blue, yellow, and green, among others.

If you want to use a color that isn't visible on the menu, click More Fill Colors in the lower portion of the Fill menu. The Color dialog box appears, as shown in Figure 6-5, which resembles a tie-dyed shirt.



Figure 6-5: Choosing a color.

Here, you can construct any of the 16-million colors theoretically possible with SmartDraw. We recommend against attempting to use all 16 million of them in the same drawing.

You can create a custom color in three ways:

- ✓ Drag the controls in the main color area until you find a color you like. You can then drag the pointer on the thin vertical bar at the right side of the dialog box up or down to increase or decrease the intensity of the color that you've chosen. This is the easiest and most intuitive way to create custom colors.
- Manually set the Hue, Saturation, and Luminosity values. In most cases, you'll use these settings only if someone tells you that you must use a particular color in your drawing, and that someone also provides you with the Hue, Saturation, and Luminosity values for the colors. Otherwise, you need a PhD in color to use these settings.

Enter the Red, Green, and Blue values. (The Red, Green, and Blue values are also known as RGB values.) Again, you'll probably use this option only if someone tells you that you must use a certain color and provides you with the RGB values to use.



Feel free to play all you want with the Color dialog box, but be warned: It's very easy to create really ugly colors that clash badly with the other colors in your drawing. We suggest you stick with the standard colors and the theme colors instead. (If you really mess up the colors, you can fix the entire drawing quickly by re-applying a theme.)

Being transparent

Immediately beneath the Standard Colors section of the Fill menu is the Transparency section, which lets you set the transparency of a shape's fill. By default, fills are 0% transparent, which means that the shape's fill completely hides anything that happens to be behind the shape. The other transparency settings let you set increasing levels of transparency, which allows whatever lies behind the shape to show through the object. You can select one of ten transparency percentages, ranging from 0% (completely opaque) to 90% (almost completely transparent).

Figure 6-6 shows a simple drawing that has a rectangle filled with a stone texture. On top of the rectangle are three shapes created from one of the landscaping symbol libraries. The shape on the left has no transparency: It allows none of the background to show through. The shape on the right has the maximum transparency (90%), which allows the background to show; the shape in the middle has 40% transparency, which allows the background to partially show.



Applying a gradient

A *gradient fill* is a fill effect that smoothly blends two different colors. Gradient effects can be subtle or bold, depending on how similar the blended colors are. For example, if you blend a bright shade of yellow into a not-so-bright shade

of yellow, the effect is subtle. But if you blend a bright shade of yellow into a bright shade of red, the effect is bold.

To apply a gradient fill, click the Fill button and choose Gradient. This reveals a gallery of gradient options, as shown in Figure 6-7. Then you can select the gradient you want to use.



If none of the gradient fills in the gallery suit your fancy, you can create a custom gradient fill by clicking More Gradients. The Gradient Fill dialog box appears, as shown in Figure 6-8. You can then customize the gradient fill to your liking:



- Set the two colors you want to use for the fill by clicking the One and Two buttons. When you click either of these buttons, a menu similar to the Fill menu, showing just the color options (no gradients, textures, or hatches), appears. You can then choose the color you want to use.
- Pick a customized style. If you prefer, you can choose one of the predefined color schemes.

Choose a gradient for the Color Schemes box. You can choose one of twelve different gradient styles to control the direction of the gradient and the manner in which the colors are blended.

Using textures

A *texture* is a photo-quality bitmap image designed so that it can be repeated throughout a shape without any noticeable tiling. Textures let you create objects that look like they're made of wood, stone, parchment, and so on. Figure 6-9 gives a sampling of the textures you can create with SmartDraw.



Figure 6-9: A variety of textures.

> To apply a texture, click the Fill button and choose Texture. The Texture gallery is revealed, as shown in Figure 6-10. Here you can choose one of several textures to apply one of the more commonly used textures.


For more texture choices, click the More Textures option at the bottom of the gallery. The Select a Texture dialog box opens, as shown in Figure 6-11. Here you can choose one of the many textures provided with SmartDraw. Spend a few moments to peruse the various texture categories that are available.

If none of the textures that come with SmartDraw suit your fancy, you can use any photograph you want. To import a photograph to use as a texture, click the Add Texture button. The Insert Picture dialog box opens, which lets you select any picture file located on your computer. When you find a picture you want to use as a texture, select it and click Open.



To be suitable for use as a texture, a photograph should have a uniform appearance so that when the picture is tiled, the edges will blend smoothly.



Figure 6-11: The Select a Texture dialog box.

Batten down the hatches!

A *hatch* is a pattern of lines or dots that's used to fill an object. If you choose Hatch from the Fill menu, you can select a pattern from the Hatch gallery shown in Figure 6-12. This gallery lists 48 different patterns and lets you specify your choice of foreground and background colors.

Here are a few interesting points to ponder as you lay awake tonight considering the marvel of hatches:

- You can apply a hatch to an object that has either a fill color or a texture. In that case, the hatch is displayed over the top of the color or texture.
- The lines or dots that make up a hatch pattern are displayed using the object's line color setting.
- ✓ To remove a hatch, choose Fill₅≻Hatch₅≻No Hatch.



Formatting Lines

As you work with SmartDraw, you encounter two basic types of lines. The first are actual line objects, which are usually connectors between shapes in a drawing. The second are lines that indicate the outline of shapes such as rectangles, triangles, and circles. You can apply formatting to both types of lines by using the Lines button, found in the Shape Style group on the Home tab, as shown in Figure 6-13.

The Line menu is very similar to the Fill menu. In fact, all the options available on the Fill menu, including colors, gradients, textures, and hatches, can be applied to lines. In the following sections, we explain how you can use the two additional commands that appear on the Line menu: Thickness and Dashes.



Setting the line thickness

To set the thickness of a line, choose Thickness from the Line menu. You can select one of four standard line thicknesses, or click Custom to open the Set Line or Border Thickness dialog box, as shown in Figure 6-14. From this dialog box, you can choose one of several predefined line formats, or you can set the line thickness to any arbitrary value you want.



SmartDraw lines have two important formatting elements: Fill and Edge. The Fill setting determines the exact thickness of the central portion of the line. The line's fill (not to be confused with a shape fill) is filled with the color, gradient, texture, or hatch specified on the Line menu. Edge is an additional formatting element that's added outside of the line's fill.

The use of line edges can create interesting lines. For example, consider the two lines shown in Figure 6-15. Both of the lines in this figure are actually variants of the same line; specifically, they are curved lines with an arrowhead. The bottom curved line has a shade of gray, a line thickness of 0.13", and a thin edge. The result makes the line look more like a filled shape than a line.

Figure 6-15: Adding thickness and an edge to a line can make the line look more like a filled shape.



Creating dashed or doubled lines

To create dashed or doubled lines, choose Dashes from the Line menu. A gallery of several dash styles is displayed. Note that the last dash style on this menu doesn't actually created dashed lines; instead, it creates double lines.



You must first draw the line before you can make it a dashed line.

Figure 6-16 shows a simple line with an arrowhead with each of the possible dash styles applied.



Figure 6-16: Dashed and doubled lines.

Using Shape Effects

Shape effects are special effects you can apply to shapes. These effects go beyond simply filling the shape with color, texture, or patterns — some of the effects create features that spill outside of the boundaries of the shape, such as shadows or reflections, while other effects such as bevels or glosses alter the appearance of the interior of your shapes. Figure 6-17 shows examples of the kinds of shape effects you can create with SmartDraw.

You can find the Effects button on the Home tab in the Shape Style group. When you click the Effects button, a menu with the following options appears:

- ✓ Shadow
- ✓ Reflection
- 🖊 Glow
- 🖊 Gloss
- 🖊 Bevel
- ✓ Perspective



Each of these effects has a submenu that lets you apply one of several variations of the effect to the selected shape or shapes. In addition, each submenu includes a choice that lets you remove the effect.



You can combine some of these effects on a single object, with some limitations. Here's how the combinations work:

- ✓ A shape can have a shadow, a reflection, or a glow but you can apply only one of these three effects to a single object.
- ✓ A shape can have a bevel or a gloss, but not both.
- ✓ You can combine a shadow, reflection, or glow with either a bevel or a gloss.

In other words, a shape can have up to two effects — a shadow, reflection, or glow, and a bevel or gloss.

Color Plate 4 shows these effects.

The following sections cover each of the Effects commands in turn, with the exception of the Perspective command. You use this command to create a perspective effect when printing or exporting SmartDraw graphics to other formats.

Applying a shadow

A *shadow* creates the illusion that a shape is actually a three-dimensional object that has cast a shadow on an imaginary background. Use shadows when you want your shapes to stand out a bit from an otherwise blank background.

To apply a shadow effect to an object, select the object, go to the Shape Style group on the Home tab, click the Effects button, and choose the Shadow command. A gallery opens, listing several popular shadow styles. These shadows are organized into three basic shadow types:

- **Drop shadows:** Shadows that appear behind the object, offset a bit in one direction. Drop shadows create the appearance that the object is resting slightly above the page.
- Cast shadows: Shadows that appear in front of the object, creating the impression that the object is standing upright on an invisible floor, and the shadow is cast on this floor.
- ✓ **Inside shadows:** Shadows that appear inside the object.

Figure 6-18 shows an example of each kind of shadow.



Figure 6-18: Three kinds of shadows.

> If you aren't happy with any of the choices that appear in the gallery, you can use the Shadow dialog boxes to create custom shadows, by controlling the shadow's direction and its size. Follow these steps to create a custom drop shadow:

1. On the Home tab on the main toolbar, find the Shape Style group, click the Effects button, choose Shadow, and choose More Drop Shadows.

The Drop Shadow dialog box opens, as shown in Figure 6-19.



To create custom cast or inside shadows, click the Effects button in the Shape Style group on the Home tab, choose Shadow, and choose either More Cast Shadows or More Inside Shadows.

2. Choose the direction of the shadow by selecting one of the nine choices in the Light Direction box.

3. Vary the size of the shadow by dragging the Size slider.



4. Click OK to apply the shadow.

If you apply a shadow, you can't also apply a reflection or glow to the same object.





Creating reflections

A *reflection* in SmartDraw is similar to a cast shadow, but instead of simply displaying a fuzzy gray outline of the shape, the reflection actually displays a mirror-image replica of the shape. For example, if you examine the reflection of the box shown back in Figure 6-17, you can see the word *Reflection* written in mirror image in the reflection.

To create a reflection, click the Effects button and choose Reflection, and then select the reflection style you want from the gallery that appears. If you want to create a custom reflection, choose More Reflections to call up the dialog box shown in Figure 6-20. Move the sliders to change both the size of the reflected image and its direction.



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If a shape has a reflection, it can't also have a shadow or a glow.

Making shapes glow

A *glow* creates — you guessed it — the impression that your shape is glowing. A shape can have two types of glow: inside and outside. And the glow can be of any color and size you wish.

To add glow to an object, select the object, click the Effects button, and choose Glow. Then, choose either the inside or outside glow (or both) that you want to use from the gallery that appears.

As with reflections and shadows, you can create a custom outside or inside glow through a dialog box. Click the Effects button, choose Glow, choose More Glows or Effects, choose Glow, and choose More Inside Glows. Figure 6-21 shows the Glow dialog box for an outside glow. Move the slider to control the size of the glow, and click the Color button to select the color to use for the glow. The dialog box used to create inside glows is similar.

Size	
	1
Color	

Figure 6-21: The Glow dialog box.



An object with a glow can't have a shadow or a reflection.

Cutting a bevel

The bevel effect creates the impression that your shape is actually a threedimensional object with beveled edges. As Figure 6-22 shows, there are three basic variations of the bevel effect: Flat, Smooth, and Bump. You can also vary the angle of the light source to add additional variety; each of the three rows in the figure uses a different light source angle.



To add a beveled effect to an object, select the object, click the Effects button, choose Bevel, and then choose one of the bevel effects shown in the gallery.

You can create a custom bevel effect by clicking the Effects button, choosing Bevel, and choosing More Bevels to bring up the Bevel dialog box shown in Figure 6-23. In this dialog box, you can choose which of the three bevel effects you want to use, and you can choose the angle of the light source.



An object can use the Bevel effect or the Gloss effect, but not both.



Figure 6-23: The Bevel dialog box.

Glossing up your shapes

The gloss effect makes your shapes look like you've spray painted them with high-gloss paint or coated them with chrome. Figure 6-24 shows that there are two basic types of gloss effect: hard and soft. For the soft effect, you can specify one of four different lighting angles.

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To use the gloss effect, select an object, click the Effects button, choose Gloss, and then choose one of the gloss effects shown in the gallery. If you don't find a gloss you like, choose More Glosses. In the Gloss dialog box (see Figure 6-25), you can choose whether to use the Hard or Soft gloss effect. And if you choose the Soft effect, you can also choose the lighting angle.

Notice that you can also choose the reflection color. The effect created when you choose an alternate color is subtle - almost as if the reflection were created by a slightly colored lamp.



Figure

dialog

An object can use the Bevel effect or the Gloss effect, but not both.

	Gloss Dialog	×
	Closs Type Head Soft	Light Direction Top Left Top Right
igure 6-25: The Gloss dialog box.	Color Help Cancel	Center

Chapter 7 Working with Tables

In This Chapter

- ▶ Looking at SmartDraw tables
- Creating tables
- Editing tables
- Creating forms with SmartDraw tables

We couldn't figure out what to call this chapter: Setting the Table? Turning the Tables? Sliding Under the Table? Dancing on the Table? Tabling the Motion? The Periodic Table? Table for Two? So we gave up and decided to call it just "Working with Tables."

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This chapter describes the ins and outs of creating tables in SmartDraw. SmartDraw's table feature is remarkably versatile, so figuring out how it works really pays off.

If you're going to sit at the table, you have to remember two rules of table manners: No talking with your mouth open and no eating with your mouth full.

Understanding Tables

In some ways, a table is like a miniature spreadsheet that lives within your drawing. Like a spreadsheet, a table consists of rows and columns. At the intersection of each row and column is a cell in which you can enter text. The entire table is treated as a single shape, but each cell behaves as if it is a separate shape, with separate text entry and formatting abilities. Figure 7-1 shows a SmartDraw graphic created from one of the built-in templates that contains four tables.



You can create tables using separate shapes, but tables have these advantages:

Text wrapping: Each cell can contain one or more paragraphs of text, and text automatically wraps within its cell. Whenever text wraps to a new line, SmartDraw automatically increases the height of the row, if necessary, to accommodate the new line of text.

If you do create your table using shapes, when the height of one shape increases to accommodate text, the height of other shapes in the same row are not automatically adjusted. In contrast, SmartDraw adjusts the size of each shape within a row uniformly.

- **Format each cell:** Each cell in a table can have its own fill and line settings. You can create fancy table layouts with different colors or border styles for certain rows, columns, or individual cells.
- Combine cells: Although many tables are simple grids of rows and columns, SmartDraw lets you combine cells to create irregularly shaped tables. For example, you can create a table that has one cell in the first row, but four cells in the second and subsequent rows. Or you can create a table in which one cell spans several rows. For more information about creating this type of table, see the section "Joining and Splitting Cells" later in this chapter.

To work with tables, you use the Table tab in the SmartDraw main toolbar (see Figure 7-2). Most of the controls available in this tab are described in the remaining sections of this chapter. For your convenience, and because a chapter on tables should include at least one table. Table 7-1 shows the table controls found on the Table tab that you use when working with tables. If that doesn't turn the tables, we don't know what will.



Table 7-1 The Ta		le Tab
Control	Name	What It Does
Table	Table	Creates a new table.
Rows 5 💌	Rows	Sets the number of rows for the selected table or for new tables created via the Insert Table command.
Columns 🚺 💌	Columns	Sets the number of columns for the selected table or for new tables created via the Insert Table command.
Dekte	Delete	Deletes rows or columns.
insen Let	Insert Left	Inserts a new column to the left of the selected column.
insert Right	Insert Right	Inserts a new column to the right of the selected column.
insent Aboe	Insert Above	Inserts a new row above the selected row.
Insett Below	Insert Below	Inserts a new row below the selected row.
🗮 Join Cells	Join Cells	Joins the selected cells to create a single cell. Note that the cells must be adjacent.
🖽 Split Cells	Split Cells	Splits the selected cell in half.
Distribute 🔻	Distribute	Evenly spaces the selected rows or columns.

Table 7-1 (continued)		
Control	Name	What It Does
Format Table	Format Table	Displays a dialog box that lets you apply a predefined format to the table.
🖄 Fill 🗸	Fill	Applies a fill to the selected cell or cells.
Grid 🔻	Grid	Applies line styles to the border of the selected cell or cells.
🌟 Effects 🕶	Effects	Applies fill effects.
Autofil	AutoFill	Fills selected cells with pre- defined data.
Convert to Table	Convert to Table	Converts an existing shape to a table.
ab Convert to Text	Convert to Text	Converts a table to simple text.
Text Editing	Text Editing	Locks the selected cell or cells so that you can't edit its text.

Creating a Table

The easiest way to add a table to your drawing is to click the Insert Table button, the first button on the left of the Table tab. Here are the steps:

1. Click the Table tab on the main toolbar.

The table controls that are shown in Figure 7-2 appear.



2. In the Insert Table group, click the down-arrow beneath the Table button.

The Table Gallery, shown in Figure 7-3, appears.

3. If one of the predefined sizes shown in the Gallery matches your needs, click it and be done. Otherwise, continue with Step 4.



4. Click the Define button.

The Add New Table dialog box opens, as shown in Figure 7-4.

5. Choose one of the predefined table formats from the Select a Table Format list.

The first format in this list — Simple Grid — creates a basic table. The other table formats create interesting variations. For example, the Simple Columns format creates a table with a line between the columns but not between the rows. Other formats use various combinations of lines and shading.

6. If your table includes heading text, select the Do Not Include Any of the Text check box to omit the text from your table.

If you leave this box deselected, the text shown in the table preview within the Add New Table dialog box is included in the new table.

7. Specify the size of your table with the Number of Rows and Number of Columns text boxes.

	Select a Table Format	Preview	
	Simple Grid		UN
	Simple Columns Simple Bows Headings with Grid	в	Cancel
	Columns 1 Columns 2 Left Align Photo		Help
igure 7-4:			
	Parameters	-	
	Number of <u>Rows</u> : 8	Number of Columns: 3	
ew lable	Besize the table to fi	inside the selected shape (it possible)	
alog hov		f the best change when eaching this famous	

8. Click OK.

The table is inserted into your drawing.

Convert to Table Another way to create a table is to convert an existing shape to a table. First, select the shape. Then click the Table tab on the main toolbar, go to the Data group, and choose the Convert to Table command. The Convert Shape to Table dialog box opens, which is nearly identical to the Add New Table dialog box. You can then select the number of rows and columns for the table, choose a formatting style, and click OK to create the table.

Adding Text to a Table

After you've created a table, you'll want to start adding text to its cells. To add text to a table cell, just click the cell and start typing. If the cell doesn't accept text after you click it, try double-clicking; some tables (especially those that you created by converting an existing shape to a table) require that you double-click to enter text.



You can change the number of clicks required to enter text into a table: Select the table, click the Home tab on the main toolbar if it isn't already active, go to the Shape Properties group, and click the Text Entry button. The Text Editing Properties dialog box opens, which, among other things, lets you set whether a shape requires one or two clicks to initiate text editing.

Here's how to navigate your table:

- Move from cell to cell. Press Tab.
- ✓ Move to the previous cell. Press Shift+Tab.
- Select one or more cells. Place your cursor in the desired cell and then drag the mouse to highlight it. Keep dragging until you have highlighted an entire range of cells. (In some tables you may have to double-click in the cell to get the insertion cursor before you can drag it.)
- Select an entire row. Move the mouse pointer just inside the left edge of the leftmost cell in the row. When the mouse pointer changes to a thick arrow, click to select the row.
- Select an entire column. Move the mouse pointer just under the top edge of the uppermost cell in the column and click when the pointer turns into a thick arrow.



You can lock the contents of table cells to prevent users from changing their contents. For more information, see the section "Locking Table Cells to Create Forms" later in this chapter.

Adding Rows and Columns

To add a new row or column to a table, use one of the Insert commands on the Table tab.

To add new rows to a table, follow one of these procedures:

- ✓ Insert a new row within the body of a table. Select the row (or any cell in the row) where you want to insert the new row and click either Insert Above or Insert Below. The new row is inserted above or below the selected row.
- ✓ Insert multiple rows. Select the number of rows you want to insert and then choose Insert Above or Insert Below.

To add new columns to a table, follow one of these procedures:

- ✓ Insert a new column within the body of the table. Select the column (or any cell in the column) where you want to insert the new column and choose either Insert Left or Insert Right. The new column inserts to the left or right of the selected column.
- Insert several columns. Select the number of columns you want to insert and choose either Insert Left or Insert Right.

Deleting Rows and Columns

If you want to delete the contents of one or more cells, select the cells and press the Delete key. The contents of the cells are deleted, but the cells remain in place.

0		
De	ete	

To completely remove one or more rows or columns from the table, select the rows or columns you want to delete and click the Delete button on the Table tab. A menu opens with the following choices:

- ✓ Remove Row
- 🖊 Remove Column
- Delete Contents of Row
- ✓ Delete Contents of Column

Choose Remove Row or Remove Column.

Adjusting Cell Size

You can adjust the height of rows or the width of columns in your tables in several ways. The easiest way is to simply let SmartDraw decide. As you enter text into your table's cells, SmartDraw automatically adjusts the cell sizes to try to accommodate your text.

If SmartDraw's efforts are not satisfactory, you can manually adjust the cell sizes. To do that, hover the mouse over one edge of the cell. When the pointer changes to a double line, click and drag the mouse to stretch the cell to the height or width you wish. If your table requires a double-click to enter text, you need to double-click in a cell before you can get the double-line to adjust the size.

You can also direct SmartDraw to make all of the rows or columns — or just selected rows or columns — the same size. To do that, first select the rows or columns you want to adjust. To adjust all rows or columns, select the entire table. Then, click the Distribute button on the Table tab and choose either Space Rows Evenly or Space Columns evenly.

Joining and Splitting Cells

SmartDraw lets you join cells together to create cells that span more than one row or column. This lets you create almost any imaginable arrangement of cells. For example, Figure 7-5 shows a table that uses joined cells to create a form.

Quantity	Price Total
	Sales Total:
Shipping	g & Handling;
	Sales Tax:
1	Total Amount:
Credit Cerd DuS Check	d Divertiese Order American Express Express (mm/yyyy)
	Cuantity Quantity Guantity Singpin Cuali Cerd Condi Cerd Singpin Condi Cerd Singpin

Figure 7-5: A table with ioined cells.

🔟 Distribute 🔻

To join cells together, follow these steps:

1. Highlight the cells you want to join.

The cells must be adjacent to one another, and they must form a rectangular block of cells.

```
Join Cells
```

2. Click the Join Cells button.

The cells merge into one gigantic cell that spans several rows or columns.

🖽 Split Cells

You can also use the Split Cells command to split a cell into two cells. First, select the cell or cells you want to split. Then click the Split Cells button to split each selected cell into two cells.

Formatting a Table

If you want, you can manually format a table by using the Fill, Grid, and Effects buttons in the Table Style group of the Table tab. These buttons work almost exactly as they do for regular shapes, as described in Chapter 6, so we don't go over them again here.



An easier way to quickly format a table is to click the Format Table button (found in the Table Style group of the Table tab), which brings up the Format Table dialog box shown in Figure 7-6 (which is similar to the Add New Table dialog box). It lets you quickly apply a predefined set of formatting options with just a click of the mouse.

	Format Table	×
Eiguro 7 6:	Select a Table Format	OK Carrcel <u>H</u> elp
The Format Table dialog box.	Parameters Number of Bows: 16 Number of Columns: 1 If Resize the table to fit inside the selected shape (if possible) 1 If Do not include any of the test shown when applying this format	

Using the AutoFill Feature

The AutoFill button, found in the Data group of the Table tab, lets you quickly fill table cells with commonly used sequences such as sequential numbers, the days of the week, the names of months, and so on. To use this feature, follow these steps:

1. Select the rows or columns in which you want the sequence inserted.

For example, Figure 7-7 shows a simple table with the first column of 14 rows selected.



Figure 7-7: A table with cells selected.

 1.5

2. Click the AutoFill button.

The AutoFill Table dialog box, shown in Figure 7-8, appears.

	AutoFill Table Upp Numbers Days of the Week Date Range (Month/Day) Months Cate Range (South) Cate R	Pteview Sunday Monday Tuesday Wednesday Inursday Friday Saturday	OK Cancel Help
Figure 7-8: The AutoFill	Parameters Start with Sunday	Number of ⊻alues 14	Abbreviate
i able dialog box.	Insert C Insert across the row	Down the column	

3. Choose the sequence type you want.

The available options are Numbers, Days of the Week, Date Range, Months, Years, and Constant.

4. Enter the parameters for the sequence type you selected.

Note that the parameters change depending on which type of sequence you select. The following table lists the parameters that you can enter for each sequence type:

Туре	Parameters
Numbers	Starting Value, Ending Value, Increment, Number of Values, Suffix, Prefix
Days of the Week	Start With, Number of Values, Abbreviate
Date Range	Starting Value, Ending Value, Increment, Number of Value, Suffix, Prefix
Months	Start With, Number of Values, Abbreviate
Years	Starting Value, Ending Value, Increment, Number of Values, Suffix, Prefix
Constant	Constant Value, Number of Values

5. Click OK.

The values are inserted into your table.

For example, Figure 7-9 shows the table that was shown in Figure 7-7 after the selected cells have been filled with the days of the week.

Figure 7-9: A table after the AutoFill command has been used to add the days of the week.

	2
Sunday	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

Here are a few additional thoughts concerning the AutoFill feature:

- ✓ The Prefix and Suffix fields let you add text before or after the sequence values.
- \checkmark Date ranges must be in the form mm/dd. For example, 1/15 is January 15 and 10/31 is Halloween.
- \checkmark Unfortunately, the Years option isn't clever enough to deal with twodigit years. For example, if you want the sequence to cover 1999 to 2009 but want the sequence to read 99, 00, 01, and so on up to 09, you'll have to enter the numbers yourself.
- \checkmark The Insert options at the bottom of the dialog box let you choose whether you want to insert the values in a row or in a column. If you select a row or column before you call up the dialog box, these options are already set for you. But if you select just a single cell, you must choose one of these options.

Locking Table Cells to Create Forms

SmartDraw tables are often used to create fill-in-the-blank forms. In fact, many of the templates that come with SmartDraw are elaborate forms that are created from tables. (Refer to Figure 7-5.)

By default, SmartDraw lets you edit the text in any cell in a table. But when you create a fill-in form, you may want to protect the text in certain cells so that no one else can edit the text in those cells. For example, you may want to protect text in cells that contain headings that should never be changed.

To protect a cell so that its text can't be changed, select the cell, and then click the Table tab if it isn't already active, go to the Data group, and deselect the Text Editing check box.

If you find that you do need to edit the text in a protected cell — for example, to change a heading — just select the cell, and then click the Text Editing check box again to deselect it.

Chapter 8

Inserting Images in Your Drawings

In This Chapter

- ▶ Understanding picture file types
- Moving pictures from your camera or hard disk into a SmartDraw drawing
- Cropping, zooming, and panning your pictures
- Correcting exposure problems

The whole purpose of SmartDraw is to create business graphics that convey the meaning of a thousand words in simple, straightforward, clear, and meaningful pictures. Sometimes, the best way to achieve that end is to insert photographs — pictures of your products, your clients, your staff, your workplace, your city, or anything else that helps support your central ideas — into your business graphics.

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SmartDraw has many tools for working with pictures in your drawings. You can pull a picture in directly from a camera or scanner, you can grab a picture file that's already saved to your computer's hard disk, or you can use pictures you find on the Internet (with permission, of course!). And after you put a picture in your drawing, you can edit it in many useful ways: You can crop it, pan it, zoom it, brighten or dim it, give it more or less contrast, and otherwise manipulate it to your heart's content.



One of the more interesting things you can do with pictures in SmartDraw is use them as the bars in a bar chart or the pie slices in a pie chart. For information on how to use pictures in this way, refer to Chapter 10.

Exploring the Many Types of Pictures

The world is awash with many different formats in which you can store pictures on your computer. Fortunately, SmartDraw works with almost all these formats. The following sections describe the two basic types of pictures that you can work with in SmartDraw: bitmap pictures and vector drawings. Bitmap pictures are primarily used for photographs, while vector drawings are used for clip art.



If you have a choice in the matter, we recommend using JPEG format images for photographs that you want to include in SmartDraw drawings because the JPEG format has built-in compression that saves disk space.

Bitmap pictures

A *bitmap picture* is a collection of small dots that comprise an image. Bitmap pictures are most often used for photographs and for icons and buttons used on Web pages. You can create your own bitmap pictures with a scanner, a digital camera, or a picture-drawing program such as Adobe Photoshop or Corel Photo-Paint. You can even create crude bitmap pictures with Microsoft Paint, which is the free painting program that comes with Windows.

The dots that comprise a bitmap picture are called *pixels*. The number of pixels in a given picture depends on two factors: the picture's resolution and its size. *Resolution* refers to the number of pixels per inch, often called *dots per inch*, abbreviated *dpi*. Most computer monitors display anywhere from 72 to 100 pixels per inch. At 100 dpi, a 1-inch-square picture requires 10,000 pixels (100 x 100).

Photographs that you print on an inkjet or laser printer should have a much higher resolution, typically at least 300 dpi, and often much more. At 300 pixels per inch, a 4-x-6-inch photograph requires more than two million pixels.



Pictures with higher resolution require more total pixels for the image than pictures with lower resolution. For example, a 4-x-6-inch photograph at 300 dpi requires 2.1 million pixels, but the same picture at 600 dpi requires more than 8.6 million pixels.

The term *megapixel*, which is used to measure the capacity of digital cameras, refers to the maximum number of pixels the camera can record for a given image, in millions. Thus, you need an 8.6 megapixel camera to create a 4-x-6-inch picture at 600 dpi because that picture requires 8.6 million pixels to store.

One other thing to note about resolution is that for a given picture, increasing or decreasing the printed size of the picture doesn't change the number of pixels used in the picture. Instead, it changes the pixel density of the image. For example, if you shrink that 8.6-megapixel, 4-x-6-inch image to 2×3 inches, the picture still has 8.6 million pixels. But the number of pixels per inch doubles from 600 to 1,200. Likewise, if you enlarge the picture to 8×12 inches, the number of pixels per inch is cut in half to 300.

The amount of color information stored for the picture — also referred to as the picture's *color depth* — affects how many bytes of computer memory the picture requires. The color depth determines how many different colors the picture can contain. Most pictures have one of two color depths: 256 colors, which requires one byte per pixel, or 16.7 million colors, which requires four bytes per pixel. Simple charts, diagrams, cartoons, and other types of clip art look fine at 256 colors. Photographs usually use 16.7 million colors.



Pictures with 16.7 million colors are also known as *TrueColor* pictures or *24-bit color* pictures.

A 4-x-6-inch picture at 600 dpi, using 8.6 million pixels, requires about 8.6MB to store 256 colors. With TrueColor, the size of the picture jumps to a whopping 32MB.

Fortunately, most bitmap picture formats use special *data compression* techniques to reduce their sizes without noticeably distorting the image. Depending on the actual contents of the picture, a 32MB picture may be reduced to under 1MB or even less.

Bitmap picture files usually have filename extensions such as .jpg, .gif, .bmp, or .png. Table 8-1 lists all of the bitmap file formats that SmartDraw supports.

Table 8-1	SmartDraw's Bitmap Picture File Formats
Format	What It Is
BMP	Garden variety Windows bitmap file, used by Windows Paint and many other programs
GIF	Graphics Interchange Format, a format commonly used for small Internet pictures
JPG (or JPEG)	A common format for photographs that includes built-in compression
PCX	A variant type of bitmap file, also used by Windows Paint
PNG	Portable Network Graphics, an image format designed for Internet graphics
TIFF	Tagged Image File Format, another bitmap program most often used for high-quality photographs

Vector formats

Besides bitmap pictures, the other category of picture files that you can use with SmartDraw are vector drawings. A vector drawing is a picture file that contains a detailed definition of each shape that makes up the image. SmartDraw itself is a vector drawing program. Other vector drawing programs include Adobe Illustrator and AutoCAD.

SmartDraw supports several of the most popular vector drawing formats, as described in Table 8-2.

SmartDraw lets you edit vector pictures you insert into your drawings. For starters, you can resize them. You can also ungroup a vector picture to break it into individual SmartDraw shapes, which you can then edit as you see fit using any of SmartDraw's shape-editing capabilities. For example, you can apply line styles or fills. (For more information about these editing techniques, refer to Chapter 3.)

Vector pictures are also subject to SmartDraw's other picture-editing features, such as the ability to crop, pan, zoom, trim to a picture, and change brightness or contrast only with bitmap formats.

Table 8-2	SmartDraw's Vector File Formats
Format	What It Is
AI	Adobe Illustrator, one of the most popular vector drawing programs
CDR	CorelDraw, a drawing program
CGM	Computer Graphics Metafile
DRW	The format used by Micrografx Designer and Micrografx Draw, two popular drawing programs that have now been absorbed into Corel's product line
DWG	Another type of file that AutoCAD drawings use
DXF	A drawing interchange format that AutoCAD uses
EMF	An Enhanced Windows Metafile picture
EPS	Encapsulated Postscript, a format that some high-end drawing programs use
HPGL	Hewlett-Packard Graphics Language, the format that Hewlett- Packard plotters use
PDF	Portable Document Format, which Adobe Acrobat uses
WMF	Windows Metafile, a format that many programs recognize

Using the Picture Tab with Bitmap Images

Most of SmartDraw's features for working with bitmap pictures are consolidated onto the Picture tab on the main toolbar, as shown in Figure 8-1. *Note:* Many of the controls on the Picture tab are enabled only when you've inserted an actual picture into your drawing, and when the picture is selected.

Table 8-3 lists the various controls you can find on the Picture tab.

Table 8-3		The Picture Tab
Control	Name	What It Does
From Camera	From Camera	Retrieves pictures from a digital camera, either directly or from the camera's media card. Pictures retrieved with this command are added to the symbol library.
Picture Folder	Picture Folder	Retrieves pictures from a folder on your hard disk and adds them to a symbol library.
Opin Penum	Open Picture	Retrieves a single picture from your computer's disk and inserts the picture into your drawing. (This command is the same as the Insert Picture command found on the Insert menu.)
Capture Web Image	Capture Web Image	Lets you retrieve images from Web pages.
Pan & Zoom	Pan & Zoom	Zooms in and out and pans the picture within its frame.
₩ Comp	Сгор	Crops the picture.
Trim to Shape	Trim to Shape	Trims an image to the shape that contains it.
Dightness	Brightness	Adjusts the image's brightness.
Contrast	Contrast	Adjusts the image's contrast.

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Getting Pictures into a Symbol Library

After you understand what kinds of picture formats SmartDraw can work with and get an overview of the Picture toolbar, you can get down to the task of ornamenting your drawings with pictures. There are two basic ways to do that. The first is to create a symbol library that contains your pictures. Then, you can insert any of the pictures from the symbol library into any drawing you want. The second is to simply insert the picture directly from a folder on your hard drive into the drawing. The first method is useful if you think you'll use the picture over and over again in multiple drawings; the second is more appropriate when you only intend to use the picture in one drawing.

The following sections describe two ways to create symbol libraries that contain your pictures. For information about how to insert a picture once you have created a symbol library or how to insert a picture without creating a symbol library, see the section "Getting Pictures into Your Drawings" later in this chapter.

Getting images from a camera

When your pictures are still in your camera or other source — such as a flash drive or CD or DVD — you need to get them into SmartDraw. What you need is the From Camera button. Despite its name, you use it to grab images from any peripheral device that contains pictures.

Here are the steps for copying pictures from a camera (or other source) into a SmartDraw symbol library:

1. Buy a digital camera.

If you already own one, you can skip this step.

2. Take some pictures.

If you've already taken the pictures, you can skip this step, too.

That's enough for stepping skips — er, we mean skipping steps. From here on out, you have to follow the steps.

3. Remove the memory card from the camera and insert it into the appropriate slot on your computer.

If your computer doesn't have a slot that will hold the memory cards used by your camera, try connecting the camera directly to the computer using the USB cable that came with the camera.



As an alternative, you can buy an inexpensive card reader for about \$15 at any consumer electronics store (if there are still any in business in your town) or at an office supply store that carries computer supplies. These inexpensive card readers connect to your computer via a USB port and can accommodate most different kinds of camera memory cards.

4. If a Windows dialog box appears asking what you want to do with the pictures, close it.



5. In SmartDraw, click the Picture tab and then click the From Camera button.

The Select Photo Source dialog box appears as shown in Figure 8-2.

6. Click the photo you want to use.

If your photos don't appear in the dialog box, use the drop-down list to choose a different location. One of the locations in the drop-down list contains the photos on your camera's memory card.



If you want to erase the pictures from your camera after the pictures are copied into SmartDraw, select the Erase after Transfer check box. If you leave this check box deselected, the pictures are left on the memory card.



7. Click Next.

The Set Photo Destination dialog box, shown in Figure 8-3, appears.

	Set Photo Destination	8
	Enter name of new folder to copy your photos into	
Figure 8-3:	Destination Location Path: C:\Documents and Settings\Doug\VI D\VI Pictures Change Location	
The Set Photo lestination dialog box.	< हुस्रदे ा्रियर > Import Photos	Cancel

D C

8. Type a name for the folder that will hold your picture(s).

SmartDraw creates a folder using the name you provide in your My Pictures folder.



If you want to store the photo(s) in a different location, click the Change Location button and browse to the location where you'd prefer to store the picture(s).

9. Click Import Photos.



The photo(s) is copied to your hard disk and saved in the folder you specified in Step 8. In addition, a symbol library using the folder name is created and added to the Library tab, as shown in Figure 8-4.

10. Remove the camera card and put it back in your camera.

This may be the most important step in the procedure! Those little buggers are easy to lose.

11. You're done!

That was easy; wasn't it?

Creating a symbol library from a folder of pictures

Maybe you already have pictures on your computer. You can use them in your SmartDraw charts. The Picture Folder button on the Picture tab lets you create a symbol library from a folder of pictures on your hard disk. Here are the steps:

1. Put some pictures in a folder somewhere on your computer.

Most likely, this folder should live within your My Pictures folder.

If the pictures already exist somewhere in a folder on your hard drive, you can skip this step.



2. In SmartDraw, click the Picture tab and then click the Picture Folder button.

The Browse for Folder dialog box appears, as shown in Figure 8-5.

Browse for Folder		? ×
Select Folder of Photos to Import (.JPEG files)		
	Documents Downloads Sy Favorites Mix Mixele	^
	Wy Pictures Adobe Halloween 2007 Halloween 2008 Doug	
	Gina	•

Figure 8-5 The Browse for Folder dialog box.

> 3. Navigate your way through the folder tree until you find the folder that contains your pictures.

When you find the right folder, click it to select it.

4. Click OK.

The pictures are copied into a symbol library.

5. You're done!

Getting Pictures into Your Drawings

After you have your pictures copied into a symbol library, you can get down to the business of inserting them into your SmartDraw charts. Or if you have a stray photo somewhere on your hard drive or find one on the Internet that you don't want to add to a symbol library, you can use that, too. The following sections show you how.

Inserting a picture from a library

When you have your images in your library, you can insert a picture from the library into your drawing the same as you would insert any other symbol:

- Simply drag a picture from the library to your drawing.
- Select a picture in the library and then click in the drawing to insert the picture.
- ✓ To insert the same picture into your drawing multiple times, click the picture, then hold down the Shift key and click the drawing several times. Each time you click, a copy of the picture is inserted.

Inserting a single image

If you just want to insert a single, solitary picture into a drawing, follow these steps:



1. Click the Picture tab on the main toolbar, find the Get Images group, and click the Open Picture button.

The Insert Picture dialog box appears, as shown in Figure 8-6.





The Open Picture command on the Picture tab is a duplicate of the Picture command that appears on the Insert tab.

2. Select the picture you want to insert.

If the picture doesn't appear in the dialog box, use the Look In dropdown list to navigate your way to the folder that contains the picture you're looking for.

3. Click Open.

The picture is inserted into your drawing, as shown in Figure 8-7.



After you've inserted a picture into a drawing, you can manipulate it like any other shape: You can drag it around, resize it, add borders, and apply effects. For example, Figure 8-8 shows five examples of how you can format a photo using the Effects button on the Design tab. For more information about applying effects, refer to Chapter 6.

Inserting an image into a shape

Normally, when you insert an image, the image takes the shape of a rectangle. You can then change the size and proportions of the rectangle by dragging its edge or corner handles. But when you do so, the shape remains a rectangle.



Figure 8-8: You can apply shape effects to a picture.

What if you want to paste an image onto some shape other than a rectangle? It turns out that this is easy enough to do. Figure 8-9 shows several different shapes containing a picture.



Figure 8-9: It's easy to insert a picture into a shape. Here are the steps:

1. Draw a shape you want to slap a picture into.

You can use any of SmartDraw's drawing tools to do so. For more information about drawing shapes, see Chapter 3.

- 2. Click the shape to select it.
- 3. Click the Open Picture button on the Picture tab.

The Insert Picture dialog box appears. (Refer to Figure 8-6.)

- 4. Find the picture you want to insert and select it.
- 5. Click Open.

The picture is inserted into the shape.



When you insert a picture into a shape, you probably won't be all that happy with the way the picture is framed within the bounds of the shape. But you can fix it up easily enough by zooming and panning the image within the shape. For more information, refer to the section "Panning, Zooming, and Cropping Your Pictures" later in this chapter.

Using a picture from a Web site

The Capture Web Image command makes it easy to import graphics from Web sites into your SmartDraw drawings.



Be advised that many of the images you find on the Internet are protected by copyright law. Make sure you have permission to use any images you capture from the Web before you use them for commercial purposes.

Here's how you capture an image from a Web page:



1. Click the Capture Web Image button on the Picture tab.

The special SmartDraw Web browser appears, as shown in Figure 8-10.

2. Browse to the Web page that contains the image you want to capture.

The special Web browser has just a few simple controls for navigating the Web: Forward, Back, Stop, Refresh, Search, and Start Page buttons work the same as they do in any Web browser; the Favorites button displays your Internet favorites, and the Address box lets you enter any Web address.

3. Click the Capture Webpage button.

The browser closes, and the entire Web page you were viewing is inserted into your drawing as a picture, as shown in Figure 8-11.




Figure 8-11: A Web page that has been captured and inserted into a drawing. The Capture Web Image command inserts an entire Web page into your drawing. After you've inserted the Web page, you can use SmartDraw's crop, zoom, and pan features to crop the picture down to just the part of the page you want to use in your drawing. For more information, see the section "Panning, Zooming, and Cropping Your Pictures" later in this chapter.



Another way to copy images from a Web site into SmartDraw is to simply right-click the picture and choose Copy to place a copy of the picture on your clipboard. Then, switch over to SmartDraw and press Ctrl+V to paste the picture into the drawing.

Panning, Zooming, and **Cropping Your Pictures**

In most pictures, the actual subject of the picture is too small, relative to the unimportant background information in the picture. And sometimes the subject isn't properly centered within the picture.

Fortunately, SmartDraw lets you correct both of these problems by using the Pan & Zoom tool. You can usually improve the appearance of any picture using this tool — sometimes dramatically.

For example, Figure 8-12 shows two versions of a Halloween photograph. The top version is the raw, unedited photo. The photo is badly balanced and includes elements that detract from the scene, including the time and date stamp added by the camera. The main subject of the photo - the skeleton playing the antique organ — is crowded out by the other elements.

The bottom version is the same photo focusing on just the skeleton organist by zooming and panning. Quite an improvement, wouldn't you say? (And yes, the organist did scare a lot of kids away that year.)

To pan and zoom an image, follow these steps:

1. Select the image.



2. Click the Picture tab on the main toolbar, find the Picture Size group, and click the Pan and Zoom button.

Or just double-click the image.

Either way, the Pan and Zoom toolbar appears next to the picture, as shown in Figure 8-13.





Figure 8-12: Panning and zooming can dramatically improve a picture.



Figure 8-13: Using the Pan and Zoom toolbar.

3. Pan and zoom using the following controls:

- Pan around the picture within its frame with the four arrows. Note that this control doesn't do anything initially; you must zoom in at least a little before you can pan the image around within its frame.
- Zoom in and out of the image with the slider control. After you zoom an image a bit, you can use the arrow controls to move the image left, right, up, or down.
- Click the magnifying glass buttons above and below the slider control to zoom in or out.
- Click the crop-mark button at the bottom-left side of the toolbar and select a rectangular region of the picture. This accomplishes both a zoom and a pan at the same time: The image is both zoomed and panned so that the area you select fills the space.

The folder button at the bottom-right side of the Pan and Zoom toolbar has nothing to do with panning or zooming. Instead, it lets you replace the picture that's contained within the shape with a different picture. When you click this button, the Insert Picture dialog box is displayed so that you can choose a new picture for the shape.

Following are a few additional points to ponder when using the Pan and Zoom toolbar:



- Another way to zoom and pan a picture when the Pan and Zoom toolbar is visible is to simply click within the Pan and Zoom toolbar. Then, you can click and drag the picture to pan it, and you can spin the wheel on your mouse (assuming your mouse has a wheel) to zoom the picture in or out.
- ✓ The Picture toolbar includes a separate button named Crop (shown in the margin) which lets you crop a picture to one of several predefined sizes, including 4 x 6 inches, 5 x 7 inches, and 8 x 10 inches. Although this button is useful at times, the Crop button on the Pan and Zoom toolbar is much more flexible in that it lets you crop your image to any size you want.
- ✓ Note that you can zoom or pan only bitmap file formats such as JPG or BMP. You can't zoom or pan vector file formats.
- When you zoom and pan a picture, the parts of the picture that aren't currently visible are still present within the picture - they're just hidden. If you want to actually remove the non-visible portions from the picture, you must trim the picture as described in the next section.

Trimming a Picture

When you zoom and pan a picture, the parts of the picture that don't fall within the shape are still present in the picture — those parts just aren't visible. As a result, you can always use the Pan and Zoom toolbar again to view the parts of the picture that were clipped.

But suppose you want to permanently remove the parts of a picture that have been clipped off by zooming or panning? You can do that easily by using the Trim to Shape command. Here are the steps:

1. Select the picture you want to trim.



2. Click the Trim to Shape button.

You get a Do You Really Want to Do This? confirmation dialog box, as shown in Figure 8-14.

Figure 8-14:	Sr
Are you	1
sure you	
want to	
do this?	

SmartDraw	×
This command will physically trim your photo to	Continue
remove the hidden areas outside of the shape.	Cancel
This will make the storage size smaller, but you will no longer be able to zoom out or pan to the currently-hidden areas of the image.	
Do you wish to continue?	

3. Click Continue.

The picture is permanently trimmed.



By *permanently trimmed*, we mean that the picture inside the drawing is trimmed so that the invisible parts are removed. But this clipping occurs only within the copy of the picture that exists within your SmartDraw file. The actual JPG or other type of picture file from which the picture was inserted isn't changed.

Keep in mind that you can trim only bitmap files such as JPG or BMP files. Vector images can't be trimmed.

Changing the Exposure

Many pictures are either too dark or washed out. You can often correct these problems by using the Brightness and Contrast controls found on the Picture toolbar:



✓ Brightness: Lets you increase or decrease the picture's brightness by as much as 50 percent.

✓ Contrast: Lets you increase or decrease the picture's contrast, again by as much as 50 percent.

Keep in mind that you can adjust the brightness and contrast for only bitmap file formats such as JPG or BMP. You can't adjust these settings for vector formats.

Chapter 9 Working with Layers

In This Chapter

- Looking at layers
- Making layers invisible
- Locking and unlocking layers
- Changing layer order

This chapter covers a feature of SmartDraw called *layers*. Layers are a way to separate different categories of shapes within a single drawing so that you can work on them separately. They're most often used in floor plans, to represent the different elements that make up the floor plan, such as the walls, furniture, electrical, plumbing, and other types of details. Strictly speaking, all SmartDraw drawings have at least one layer. However, only certain types of drawings — most notably floor plans — are improved by having more than one layer. (For more information about floor plans, see Chapter 13.)

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Understanding Layers

In most SmartDraw drawings, all shapes, text, lines, and other objects you add to the drawing are placed directly on the page. If two objects happen to overlap, you can dictate which of the objects appears on top.

With all objects on one layer, you have only basic control over how objects overlap one another. SmartDraw has a much more powerful feature for working with overlapping objects: layers. You can think of a layer as a transparent paper that can hold shapes, text, lines, and other SmartDraw objects.

Every SmartDraw drawing begins life with just one layer, called the Default layer. In a drawing that has just the Default layer, all objects in the drawing belong to the Default layer.

However, you can add more layers to a drawing — up to 32 layers altogether, in fact. For example, an office floor plan might have several layers, including these:

- ✓ A layer for the walls.
- ✓ A layer for the furniture.
- ✓ A layer for computers and other office equipment, such as copiers and paper shredders. (If the floor plan happens to be for the White House, you may need a separate layer just for the paper shredders.)
- ✓ A layer for text boxes to indicate who sits where.

Color Plate 5 shows how you can use layers in a garden landscape.

Every layer in a SmartDraw drawing has four important properties:

- ✓ Name: Every layer has a name. The name of the first layer in every drawing is Default. Whenever you create a new layer, you must provide a name for the layer. This name should reflect the content that you'll place on the layer. For example, Walls, Furniture, Equipment, and Staff are good choices for the layer names in an office floor plan.
- ✓ Order: When a drawing has more than one layer, the layers have a stacking order, just as the objects in each layer have a stacking order. The layer order determines what happens when objects in one layer overlap objects in a different layer. The objects in higher layers hide the objects in lower layers.
- ✓ Visible: One of the most important features of layers is that you can selectively reveal or hide all of the objects on each layer. By default, every layer is visible. That means that with an office floor plan, you can see the walls and other permanent elements of the floor plan, the furniture, the computers and other office equipment, and the text boxes that identify who sits where. But suppose you want to show just the walls and the furniture but leave out the computers and the text boxes. You can hide those elements easily - simply hide the layers that contain the elements you want to omit.
- **Clickable:** Another important feature of layers is that you can lock down a layer so that you can't select or modify its objects. For example, you can make the Walls layer in a floor plan unclickable. Then, you can freely edit objects in other layers of the drawing, but you won't be able to move the walls unless you make the Walls layer clickable again.



At any given moment, one — and only one — of the layers in the drawing is the active layer. Shapes in the active layer are always visible and always clickable, regardless of the Visible and Clickable settings for the layer. A layer's Visible and Clickable settings, in other words, are meaningful only when some other layer is the active layer.

Creating a New Layer

Adding a new layer to a drawing is easy. Here are the steps:

1. Click the Page tab on the main toolbar, find the Page Setup group, click Layers, then click New Layer.

The Add a New Layer dialog box appears, as shown in Figure 9-1.

	Add a New Layer	8
Figure 9-1:	- <u>N</u> ame	т ок 1
The Add a		016
New Laver	Properties	Cancel
dialog box	Visible T Clickable	Help
alalog box.		

I

2. Type a name for the layer in the text box.

Use a descriptive name that indicates the content that you'll place on the layer.

3. If you want to change the Visible and Clickable settings, change them now.

By default, all new layers are visible but not clickable. For most new layers, you should leave these settings alone.

4. Click OK.

The new layer is added to the drawing.

The new layer is made the active layer, so that any objects you add to the drawing are added to the layer you just created. For information about how to change the active layer, see the next section.

Changing the Active Layer

As we've already mentioned, only one layer at a time can be active in a SmartDraw drawing. The layers in a SmartDraw drawing are represented by tabs at the bottom of the drawing area, as shown in Figure 9-2. The Walls layer is currently the active layer in this drawing; to change to the Default layer, simply click the Default tab.

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The objects in the active layer are always visible and always clickable, regardless of the settings of the Visible and Clickable properties. Those properties come into play only when the layer is *not* the active layer.

The eye and padlock icons on the layer tabs indicate the setting of the layer's Visible and Clickable properties. You can change either of these settings by clicking the down-arrow that appears at the bottom right side of the tab and then choosing Visible or Clickable from the menu that appears.

Managing Layers

You can manage the layers that you've created in a drawing by using the Define Layers dialog box, shown in Figure 9-3. There are two ways to summon this dialog box.



- ✓ In the Page tab on the main toolbar, go to the Page Setup group, click the Layers button, and then choose Define Layers.
- ✓ Double-click the tab for any layer. (You can find the tabs beneath the drawing area.)



There are several useful and interesting things you can do with the Define Layers dialog box:

- ✓ You can change the Visible and Clickable properties for each layer by selecting or deselecting the appropriate text boxes.
- ✓ You can see the number of objects on each layer.
- You can change the order of a layer relative to other layers in the drawing. To change the order for a layer, first select that layer. Then, click the Move Layer Up or Move Layer Down button.
- ✓ You can delete a layer by selecting the layer and then clicking the Remove Layer button.
- ✓ You can edit a layer by selecting the layer and then clicking the Edit Layer button. The Edit Layer dialog box opens, which is nearly identical to the Add a New Layer dialog box that was shown in Figure 9-1. From this dialog box, you can change the layer's name or its Visible or Clickable status.

Moving an Object to a Different Layer

Suppose you're looking at the Furniture layer of an office floor plan and discover that it contains a photocopier, which should be on the Equipment layer.

No problem; you can easily move the copier to the correct layer by following these steps:

1. Click the object that is on the wrong layer.



This selects the object.

If you can see the object but can't click it, click the tab for the layer that contains the object to select that layer. You should then be able to click the object to select it.

2. On the Page tab on the main toolbar, go to the Page Setup group, click the Layers button, and then choose Move Object to Layer.

A menu listing all the layers in your drawing appears.

3. Click the layer you want to move the object to.

The object is sent to its new layer.

Changing Order within a Layer

The familiar Send to Back and Bring to Front commands on the Design tab work differently than you might expect in a drawing that has more than one layer. Specifically:

- ✓ The Send to Back command always sends the selected object to the back of the bottom layer. If the object doesn't already reside in the bottom layer, the object is moved to the bottom layer, then sent to the very back of that layer.
- ✓ The Bring to Front command, however, displays a dialog box such as the one shown in Figure 9-4 when the object isn't already on the top layer. This dialog box gives you the option of bringing the item to the front of all objects, or just to the front of its current layer. If you choose to bring the object in front of all other objects, the object is moved to the top layer, then brought to the front of that layer.

Figure 9-4:	SmartDraw			×
Bringing an	Bring to the front o	(all objects or just	t the Default layer	?
top.	All Objects	Layer	Cancel	Help



If you want to constrain the Bring to Front and Send to Back commands to the object's current layer, avoid using these commands on the Design tab. Instead, use the Bring Object to Front and Send Object to Back commands found on the Layers button on the Page tab. These commands move objects to the front or back of their current layer.

Part III Creating Business Graphics



'You should see the detail in this Topo map of the area. It's like we're standing right there."

In this part . . .

The chapters in this part show you how to use several of the most common types of templates that come with SmartDraw. You find out how to create charts such as bar charts and pie charts, as well as flowcharts, organization charts, floor plans, mind maps, and regular maps.

Chapter 10 Creating Charts

In This Chapter

- Creating bar charts, area charts, 3D charts, and more
- Working with chart templates
- Making changes to charts
- Fine-tuning your chart's format
- ▶ Spicing up your charts with pictures

One of the best ways to prove a point is with numbers, and one of the best ways to present numbers is in a chart. With SmartDraw, creating a chart is easy. In fact, SmartDraw is probably the easiest tool ever created for making professional-looking charts.

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One of the best features of charts in SmartDraw is that you don't necessarily have to create a separate data table to provide the numbers used in the chart. Other programs, including Microsoft Excel, view a chart as a way to present numbers in a special type of spreadsheet called a *data table*. Thus, in Excel, the data table is the main thing, and the chart is just a way to represent the numbers in the data table in a graphical form.

Not so in SmartDraw. Instead, in SmartDraw, the chart is the main thing. You don't even have to create a data table in SmartDraw to create a chart. Instead, you can just click one of the elements of the chart (such as a bar in a bar chart) and type the value that the element represents.

In this chapter, you find out how to use this feature as well as many other features for creating charts.



Throughout this chapter, we use the terms *chart* and *graph* interchangeably. For the purposes of this chapter, these two terms mean the same thing.

Choosing a Chart Type

Before you can create a chart in SmartDraw, you need to know the various types of charts that SmartDraw can create. SmartDraw includes templates for creating eight basic chart types, as described in the following sections.

Bar

Suppose you're interested in spotting trends in the production, export, and consumption of cigarettes over a 15-year period, and you've found this data to use as the basis for your analysis:

	1990	1995	2000	2005
Production	709.7	746.5	594.6	489.0
Export	164.3	231.1	148.3	113.3
Total Consumption	525.0	487.0	430.0	376.0

Depending on what you want to emphasize or highlight in your comparison, you'd most likely use a *bar chart* to represent this data graphically. Figure 10-1 shows a bar chart using this data. The CD has another example of a bar chart: Author/Chapter10/10-1.



The main strength of a bar chart is its ability to show how different values rank against each other. This is possible because the heights of the bars (or their lengths, if the bars run horizontally) give you an instant picture of which values are the highest, which are the lowest, which are about the same; whether the values are increasing or decreasing; and so on. The human eye is very good at spotting these relationships.

As the chart in Figure 10-1 shows, a bar chart can include more than one set of values. In this example, three different sets of values related to the tobacco industry are compared for four different years: 1990, 1995, 2000, and 2005. The three different sets of values represent the number of cigarettes produced, the number of cigarettes exported, and the number of cigarettes consumed.

In charting terms, this chart shows three distinct *series* of data: production, export, and consumption. Each series also shows four *categories*: 1990, 1995, 2000, and 2005. Each row in the spreadsheet used to create the chart is a series, and each column is a category. (Note, however, that it's an easy matter to flip the chart so that the rows become categories and the columns become series.)

Stacked bar

A *stacked bar chart* is a special type of bar chart in which the different series in the chart are stacked on top of each other to create a single bar for each category. Figure 10-2 shows an example of a stacked bar chart. There's another example of a stacked bar chart on the CD: Author/Chapter10/10-2.



Stacked bar charts are often the best choice when you want to show how several different components of a single, composite amount vary over several categories. In Figure 10-2, the categories represent the years 1990, 2003, 2010, 2020, and 2030, and the single composite value represents the total international population. The individual components of this composite represent populations of various regions, such as Central and South America, the Middle East, North America, and so on.



It's possible to create a stacked bar chart from any data that contains more than one series. However, you should avoid doing so when the series doesn't reflect the same type of data. In Figure 10-2, it makes sense to stack the series because they all represent population, and the sum of the values for each series gives a meaningful result: total population for all regions.

In contrast, it would be inappropriate to stack the series in the cigarette data used for the chart in Figure 10-1. That's because the sum of the production, export, and total consumption values for each year doesn't reflect any meaningful measurement. Stacking the bars in this case would suggest that there's a relationship between the series that doesn't actually exist.

Line

A *line chart* is most often used to show how data changes over time. For example, if you have data that shows your company's total sales for each month of the past three years, you can plot the sales data using a line chart. In most cases, the horizontal axis (also called the x-axis) represents time, and the vertical axis (or y-axis) represents the values that you're plotting against time.

Figure 10-3 shows an example of a line chart. This chart plots the number of fatal accidents for different types of vehicles from 1994 to 2006. Notice that the chart has been embellished a bit by the addition of pictures representing the different types of vehicles. This kind of embellishment isn't at all superfluous — without it, you'd have a difficult time quickly determining which vehicle type is represented by each line in the chart. (For more information, see the section "Creating Image Charts" later in this chapter.)

The CD includes another example of a line chart: Author/Chapter10/10-3.

Area

An *area chart* is similar to a line chart, except that the area between the lines is filled with color. Figure 10-4 shows a simple area chart that shows sales by region for the years 2005 through 2008. The CD includes another example of an area chart: Author/Chapter10/10-4.



In an area chart, the series are stacked much as they are in a stacked bar chart. Thus, you should use area charts for situations in which the values represented by the different series are of like type, and the values in the series give a meaningful value when added up (in this case, total sales for all regions).

Layered area

A *layered area chart* is similar to an area chart, except that the series aren't stacked. Instead, each series is plotted exactly as it would be in a line chart, and a fill color is used to fill the space beneath the line. Transparency is used so that each area is transparent, which lets you see all of the areas in the

chart. Figure 10-5 shows an example of a layered area chart. In this case, the exact same data that was shown in Figure 10-4 is presented as a layered area chart rather than as a regular (stacked) area chart. There's another example of a layered area chart on the CD: Author/Chapter10/10-5.



Pie

A *pie chart* is the most common way to show the relative proportion among items in a whole. In a pie chart, each value is represented as a slice or wedge cut from a circular pie. The entire pie represents the sum of all the individual values, and the size of each slice makes it easy to compare the relative size of each value.

Figure 10-6 shows a pie chart showing five budget categories for the operating budget of an engineering firm. To emphasize how much of the budget actually goes to engineering, the engineering slice of the pie is separated from the rest of the pie. The CD includes another example of a pie chart: Author/Chapter10/10-6.





A pie chart is most effective when it has six or fewer slices. If your data has more than six slices, you have two choices. First, you can combine several of the smaller slices into one slice labeled Other. Second, you can use a relative value chart instead, as described in the next section.

Relative value

A relative value chart is similar to a pie chart in that it's designed to show the relative proportion of several items. However, instead of showing each item as a wedge in a circle, each item is shown as a piece of a larger rectangle that represents the overall total. Figure 10-7 shows the same data that was shown in Figure 10-6, but this time it's plotted as a relative value chart instead of a pie chart. Another example of a relative value chart is on the CD: Author/ Chapter10/10-7.



Figure 10-7: A relative value chart.

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The 3D chart provides an interesting three-dimensional variation on bar and stacked bar charts. For example, Figure 10-8 shows a 3D version of the bar chart in Figure 10-1. The 3D effect renders the bars as three-dimensional objects — you can choose cylinders, cones, or cubes. In addition, the horizontal and vertical axes are represented as a floor and a wall to provide a three-dimensional space in which the cylinders are placed. The CD includes another example of a 3D chart: Author/Chapter10/10-8.



Creating a New Chart

Enough for the overview: Now it's time to create a chart. You have four distinct ways to create a chart:

- **Use one of the chart templates.** This is the preferred way because when you use a chart template, you have the advantage of the Chart SmartPanel with convenient commands for the most common chart actions.
- **Insert a chart object into an existing drawing.** Any SmartDraw drawing can contain a chart, whether or not the drawing was originally created with one of the chart templates. For more information, see the section "Inserting a chart into an existing drawing" later in this chapter.
- ✓ Paste the data from a spreadsheet program such as Microsoft Excel via the clipboard. For more information on this technique, see the section "Pasting data from the clipboard" later in this chapter.
- ✓ Import data from an external file. This technique lets you export data from a spreadsheet or other program into a text file, then import the file into SmartDraw to create a chart.

Using a chart template

SmartDraw has a number of templates for creating charts. These templates are found on the New Document tab of the Document Browser in the Charts category, as shown in Figure 10-9. (Click the New button to bring up the Document Browser.)



The templates are divided into four subcategories:

- ✓ Basic Chart: Contains a single template named Blank Chart. When you create a drawing from this template, no chart is actually created. However, you have the Chart SmartPanel available, which simplifies the task of creating your chart. We recommend using this template only if none of the other templates contains a chart that's similar to the one you want to create.
- **Chart Types:** Contains templates of the eight major chart types.
- Picture Charts: Contains 17 sample charts that incorporate images into the chart. For more information about working with images, see the section "Creating Image Charts" later in this chapter.
- ✓ Examples: Contains seven additional chart templates, many of which we show in the first section of this chapter. These charts contain placeholder data you can modify as needed for your own charts.

When you choose a template, the Chart SmartPanel is displayed, as shown in Figure 10-10.

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The Chart SmartPanel contains the following groups of commands to help you as you work with charts:

- **Import Data:** Lets you create a new chart using data copied from the clipboard or from scratch. For more information about the Paste Data from Clipboard command, see the section "Pasting data from the clipboard" later in this chapter. For more information about the Start a New Chart command, see the section "Inserting a chart into an existing drawing."
- ✓ Bar/Line/Slice Style: Contains commands that let you format the bars, lines, or slices in your chart.
- Add to Chart: Provides commands that let you add or remove series or categories.

Inserting a chart into an existing drawing

You can insert a chart into any drawing, even if you didn't create the drawing from one of the chart templates.

You can use these three ways to insert a chart into an existing drawing:

- \checkmark Click the Insert tab on the main toolbar and click the Chart button.
- Click the Chart tab on the main toolbar, find the Insert Chart group, and click the New button.
- ✓ If you created the drawing from a chart template, find the Import Data section of the SmartPanel and click Start a New Chart.

No matter which way you choose, you can select a chart type from a dropdown menu.

Pasting data from the clipboard

One of the more interesting ways to create a new chart is to paste data from the clipboard. First, you must copy the data you want to use for the chart to the clipboard. You'll typically copy the data from an Excel spreadsheet. Here are the steps:

1. In Excel, highlight the cells that contain the data you want to use for your chart and press Ctrl+C to copy the cells to the clipboard.

For example, Figure 10-11 shows a range of cells that contains the same data used to create the charts that we show in Figure 10-1.



2. Open SmartDraw and create a new drawing.

We suggest the Blank Chart template.

3. Click the Insert tab on the main toolbar, click Chart, and then select Bar Chart.

Alternatively, you can use the New command from the Chart menu. Either way, the chart is created, as shown in Figure 10-12.





If you created the drawing using one of the chart templates, you can skip Step 3. Just press Ctrl+V to paste the contents of the clipboard into the drawing. Because you selected a chart template, SmartDraw knows that when you paste spreadsheet data, you want it converted to a chart. SmartDraw even remembers the last type of chart you worked with and creates the same type for the pasted chart. (You can change the chart type if you want. See the section "Changing the chart type" later in this chapter to see how.)

Importing data from Excel

If the data you want to use for your chart exists in an Excel spreadsheet, you can import the data directly into your chart by following these steps:

- 1. Create a new drawing using the chart type of your choice.
- 2. Click the Import from Excel File button in the SmartPanel.

An Import Chart dialog box appears, which resembles a standard Open dialog box.

3. Locate the spreadsheet file you want to import, select it, and click Open.

The SmartDraw Excel File Import dialog box appears as shown in Figure 10-13.

-	A1	+ (a	Je .				-	
1	A	В	C	D	E	F		Import
	1 Number	1990	1995	2000	2005		.П	
	2 Production	709.70	746.50	594.60	489.00			Cancer
B	3 Export	164.30	231.10	148.30	113.30			
	4 Total Consumption	n 525.00	487.00	430.00	376.00		-11	
	5						-11	First Dow is Labels
	6						-11	
	/						11	First Column is Labels
	0						-11	
	0							
	1						10	
	2						11	
1	.3						11	
1	4						11	
1	5							
Figure 10-13: 📗 🗉	6							
Importing	.7							
	.8							
data from	9						1	
	10						-8	
Excel.	11							

4. Highlight the cells that contain the data you want to use for your chart.

- 5. Select the First Row Is Labels check box to indicate whether the first row contains labels, or select the First Column Is Labels check box if the first column contain labels rather than text.
- 6. Click Import.

The data is imported into your chart.

Using the Chart Tab

The Chart tab contains about a million commands you can use for working with charts. To give you an overview, Table 10-1 lists the purpose of each command on the Chart tab.

Table 10-1	The	Chart Tab
Control	Name	What It Does
A New York	New	Creates a new chart.
From File	From File	Creates a new chart using data from a file.
Form Clebcard	From Clipboard	Creates a new chart using data from the clipboard.
Add Senar	Add Series	Adds a new series to the chart.
Add Category	Add Category	Adds a new category to the cha
Dow Data Table	Show Data Table	Inserts a table that contains the data used to create the chart.
Swap Series & Categories	Swap Series & Categories	Exchanges the series and the categories.
De Deta	Pie Data	Selects the category used to create a pie chart. Note that if you use this command, the char is converted to a pie chart.
Chast Type +	Chart Type	Lets you change the chart type.
Context -	Quick Layouts	Lets you choose from a gallery o common layouts specific to eac chart type.
Retas Chat •	Rotate Chart	Rotates the chart orientation.
Axes	Axes	Controls whether the vertical or horizontal axis is shown.
📖 Grid	Grid	Lets you format the background grid.
🔊 Legend	Legend	Controls the position and contents of the legend.

Control	Name	What It Does
Max Automatic	Max	Sets the maximum value for the vertical axis.
Min Automatic	Min	Sets the minimum value for the vertical axis.
∏g/² Data ❤	Data	Controls the position of the data labels.
Hotzontal Auta 🗸	Horizontal Axis	Controls the labels and tick marks on the horizontal axis.
Vertical Acis •	Vertical Axis	Controls the labels and tick marks on the vertical axis.

Editing Your Chart

After you've created a chart in SmartDraw, the first thing you'll want to do is make some modifications to the basic layout of the chart. You may need to change the chart type or its orientation, add or remove series or categories, and edit the chart values. The following sections show you how.

Changing the chart type

Charl Type •

Chart types in SmartDraw are completely interchangeable. Having created a chart of one type, you can instantly change it to any other type by clicking the Chart Type button, found in the Layout group on the Chart tab. When you click this button, a drop-down menu appears listing the eight basic SmartDraw chart types. Clicking any of these types reveals a gallery of chart layouts you can choose from. For example, Figure 10-14 shows the gallery options for stacked bar charts.



You can also access the gallery for the current chart type by clicking the Quick Layouts button. This lets you change the quick layout without having to also select the chart type.

Be careful about indiscriminately changing the chart type. Data that makes sense as one chart type may not work at all for a different chart type. SmartDraw is happy to plot your data using any chart type you select, but the results may not make sense. (If you mess up the chart by changing it to a nonsensical type, you can back yourself out of the corner by pressing Ctrl+Z.)



Rotating your chart

Sometimes, a chart might make more sense if you rotate it 90 degrees to change the orientation of the axes and bars or lines. For example, Figure 10-15 shows the chart that was first shown in Figure 10-1, rotated 90 degrees to the right. The Year category is on the vertical axis and the units series is on the horizontal axis, with the bars running horizontally instead of vertically.





To rotate a chart, first select the chart. Then click the Rotate Chart button in the Layout group on the Chart tab and choose the rotation you want to apply.

Switching series and categories

In some cases, you can improve the presentation of a chart by swapping the series with the categories. SmartDraw lets you do this by clicking the Swap Series & Categories button in the Chart Data group on the Chart tab. When you click this button, the series and the categories trade places.

The best way to understand how this works is to look at an example. Figure 10-16 shows the chart that was first shown in Figure 10-1 after the series and categories have been switched. All of the Production bars are now grouped together, as are all of the Export bars and all of the Consumption bars.



Figure 10-16: Switching series and categories.

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Swap Senesă Categores

Adding and removing series and categories

In most cases, the chart you get may not have exactly the arrangement of series and categories that you need to depict your data. For example, the standard bar chart has four categories and three series. But what if your data requires five categories and eight series?

Fortunately, you can add or remove categories or series by using these techniques:

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To add a new series, click the Add Series button in the Chart Data group on the Chart tab. Each time you click this button, a new series is added. The series will have a generic name like Series 4. To assign a more meaningful name to the series, click the series name in the chart legend and type a new name.



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Add Sensa

- **To add a new category**, click the Add Category button in the Chart Data group on the Chart tab. A new category is added with each click of this button. The category will have a generic name like Category 4, but you can click the category name to select it, then type a new name for the category.
- **To remove a series,** click any of the bars, lines, or slices in the chart to select all of the bars for the series. You can then remove the series by pressing the Delete key on your keyboard.
- **To delete a category**, click the mouse on the border of the rectangular box that surrounds the category name to select all of the items for the category. (The border may be invisible, but it glows when the mouse hovers over it.) You can then delete the category by pressing the Delete key.

Editing chart values

The simplicity of editing chart values is one of the great strengths of SmartDraw's charts. You can use these three basic ways to edit the values that are plotted in your chart:

- ✓ You can drag the bar, line, or slice to adjust its height or size.
 - For a bar or line chart, move the mouse over the top of the bar or line until the mouse pointer becomes a double-headed arrow. Then, click and drag the bar or line up or down to adjust its shape.
 - For a pie chart, click a slice to select it, and then drag one of the handles on either edge of the slice to adjust the size of the slice.
- If data labels are visible, you can click any data label and type a new value. Press Enter to complete the entry, and the bar, line, or slice is adjusted to reflect the value you entered.



- If data labels aren't visible, show them by clicking the Data button in the Labels group on the Chart tab.
- \checkmark To edit values in a table, click the Show Data Table button in the Chart Data group on the Chart tab. The data sheet appears, as shown in Figure 10-17. You can then edit any of the values in the data table; changes are reflected in the chart immediately. To hide the data table when you're done, click the Show Data Table button again.



Formatting Your Chart

A SmartDraw chart is made up of many constituent shapes, all of which you can individually format with the same formatting techniques as any other type of SmartDraw object.

For example, you can apply custom formatting to the bars for each series in a bar chart by first clicking a bar to select the series, then using any of the formatting options available on the Home tab to format the bar. Figure 10-18 shows a bar chart formatted with gradient fills, bevel effects, and reflections. (For more information on the different effects you can add to your chart, see Chapter 6.)

You can also apply this type of formatting using the Fill with Colors button on the SmartPanel. When you click this button, a gallery of predefined fills appears on the SmartPanel.



You can also format many of the additional elements that make up a chart. In particular:

Titles: A chart title describes the chart's contents. It normally appears at the top of the chart. You can format it using any of the text-formatting options that appear on the Home tab.

Legend

- Axes: You can show or hide the horizontal or vertical axis by using the Axes drop-down menu in the Layout group on the Chart tab. You can also control whether labels and tick marks should appear on the axes by using the Horizontal Axis and Vertical Axis buttons in the Labels group on the Chart tab.
- Legends: A *legend* identifies the data series that appear in the chart. When you click the Legend button in the Layout group on the Chart tab, a menu with several choices for the placement of the legend appears. You can show or hide the legend, control its position, and specify whether the legend should include swatches of the color fill used for each series, the series name, or both.

SmartDraw can automatically create a legend, but you're on your own if you need a myth or fable.



✓ Data labels: You can control whether labels appear at each of the data points in your chart by clicking the Data button in the Labels group on the Chart tab. The options are

- Hide data labels
- Outside data labels
- Outside at an angle

- Outside with an angled leader
- Custom

If you choose Custom, the Chart Label dialog box shown in Figure 10-19 is shown. This dialog box lets you specify the placement and the contents of the data labels.

For many charts, data labels add unnecessary clutter without adding much useful information. Use labels only if you think that you must back up your chart with exact numbers.

C	hart Label Dialog	6	×
	Custom Chart Labels		
	🕼 Show Data Labeb		
	V Show Inside	V Show Value	
0 10	Show Outside	Show Percent	
Chart	Show Outside with a Leader	Show Name	
Label	🕅 Angle Labets		
j box.		Cancel OK	

Figure 10-19: The Chart Label dialog box.

- 🗰 Grid
- ✓ Grid lines: Grid lines are light lines drawn behind a chart to make it easier to judge the position of each dot, bar, or line plotted by the chart. You can turn grid lines on or off via the Grid button, found in the Layout group on the Chart tab. Clicking this button reveals a menu that lets you add major or minor grid lines to the background of your chart. The grid lines can be horizontal, vertical, or both. Figure 10-20 shows a chart with major horizontal grid lines.





Creating Image Charts

One of the most refreshing features of SmartDraw is its ability to incorporate images into charts. You can use images in a few different charts.

✓ For bar charts, you can use images as the bars for each series. The images can be stacked, scaled, or stretched — which option looks best for a given chart depends on the nature of the images. For example, you might stack dollar bills to indicate financial values, but you might want to scale a missile for a chart of various countries' missile defense capabilities. Figure 10-21 shows a bar chart that uses scaled beer glasses to indicate beverage sales. Color Plate 6 shows this same chart in color, as well as the CD: Author/Chapter10/10-21.



Figure 10-21: A bar chart that uses images.

- For line charts, you can use images to represent the data points. If you want, each series can use a different image. For an example, refer to Figure 10-3.
- ✓ For a pie chart, you can use an image to represent the pie. Obviously, this works best with images that are circular in nature. For example, Figure 10-22 shows a pie chart that uses a coin as its image. Color Plate 7 shows another chart that uses an image to display its data; the CD also has another pie chart that incorporates an image: Author/ Chapter10/10-22.

To use an image in a chart, follow these steps:

1. Select the chart element that you want to apply an image to.

For a bar chart, click any of the bars in the series to select the entire series. For a line chart, click the series in the legend. For a pie chart, click a slice.


2. Click the Fill with Images button on the SmartPanel.

The Gallery shown in Figure 10-23 appears on the SmartPanel.

3. Click the image you want to use.

If the image you want isn't in the gallery, click the Libraries button. Navigate through SmartDraw's symbol libraries to locate the image you want to use. (For more information about using symbol libraries, refer to Chapter 8.)

Alternatively, you can click the Import Image button to use an image file from your computer's disk.



4. Click the Image Fill Type button and then choose the image fill type you want to use.

The options are

- *Stacked Images:* Stacks multiple copies of the image to represent the size of the value.
- *Images Represented by Size:* Scales the image according to the data value.
- *Stretch Image:* Stretches the image vertically according to the data value.
- *Span Across Image:* Carves the image across multiple slices or bars. (This is the usual setting for a pie chart.)

5. Repeat Steps 1 through 4 for each additional chart element you want to format.



Although the image chart feature is cool, we suggest you use it with caution. Make absolutely certain that the use of your images actually enhances the impact of your chart rather than detracts from it. Depending on your audience, simple colors may have a more powerful impact than cute pictures. However, if your data lends itself to an image representation and the end result is compelling, go for it!

Animating a chart

SmartDraw makes it easy to add animation to a chart so that the various pieces of the chart appear one at a time. These animations are used when you export a SmartDraw chart to Microsoft PowerPoint. For more information, see Chapter 17.

Chapter 11

Fashioning Flowcharts

In This Chapter

- Looking at flowcharts
- ▶ Creating a basic flowchart
- Understanding all the shapes used in flowcharts
- Splitting paths
- Creating cross-functional flowcharts with swim lanes

The official definition of a flowchart goes something like this: a graphic representation, using special symbols connected with lines, that depicts the sequence of steps and decisions that must be made to accomplish some process or task.

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Hmphf.

Our preferred definition is this: a bunch of boxes and other shapes that represent the steps needed to complete some job, connected with arrows that show the sequence of the steps.

There. That's not so complicated; is it?

What's even easier than coming up with a simple definition of a flowchart is how easy it is to create a flowchart in SmartDraw. In this chapter, you find out the easy way to create simple flowcharts, as well as how to use SmartDraw's advanced flowcharting features that can help you create more complicated flowcharts.

Getting to Know Flowcharts

A *flowchart* is a diagram that graphically shows the steps needed to complete a process. The process can be something simple, like making a pot of coffee or answering a telephone, or something complex, like controlling a wastewater treatment plant or hiring a new employee. Figure 11-1 shows a flowchart for hiring a new employee. The CD includes an example of a flowchart: Author/ Chapter11/11-1.

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Simple or complex, the basic principles behind flowcharting are the same: A series of shapes that represent the steps of the process are connected to one another via lines with arrowheads that indicate the order of the steps.

To read a flowchart, you start with the oval-shaped start symbol, typically in the upper-left corner of the flowchart. This symbol is usually labeled simply Start, but sometimes it has a label that indicates the condition or criteria that triggers the need to follow the process defined by the flowchart. For example, the start symbol in the flowchart shown in Figure 11-1 is labeled Identify Staffing Need because the hiring process is triggered by the need to hire staff.

After you've located the start point of the flowchart, you simply follow the arrows. Thus, the Hiring Process flowchart in Figure 11-1 begins with three steps that should be performed in sequence:

- 1. Define and write up job description
- 2. Send personnel request form to HR
- 3. Determine classification

How much detail?

An important aspect of creating flowcharts is deciding how much detail you should include in the steps. For example, the Send Personnel Request Form to HR step in Figure 11-1 implies that you've located a copy of the form and filled it out. If you want to be more explicit, you can list these three steps separately, with three separate process boxes. Then, the first part of the flowchart would look like the figure.

The level of detail you use in your flowcharts is determined by the intended audience and how

familiar that audience is with the procedure or with similar procedures.

Although it's tempting to always include more detail rather than less, be advised that including too much detail in a flowchart can make the flowchart more difficult to follow. And second, if you make your flowchart too detailed, you must be absolutely certain that you include every step.



Each of these steps is represented by a rectangle, called a *process box* in formal flowchart terminology. The arrows indicate that the steps should be completed in sequence. In other words, you don't determine the classification until you've sent the personnel request form to HR, and you shouldn't send the personnel request form to HR until you've defined the job and written up the job description.

The next shape in the sequence is a diamond shape labeled Regular Hire?. This shape is called a *decision box*, and it represents a fork in the road. In most cases, a decision box contains a question that you can answer Yes or No to and two arrows that emerge from the decision box to indicate which way the process continues, based on the answer to the question. For example, in Figure 11-1, the flowchart continues to the Post Job Internally step if the answer is Yes.

If the answer is No, the flowchart comes to another oval, labeled Temp Hiring Process. The oval symbols represent not only the start of the flowchart, but also the end. In this case, the symbol indicates that a temporary hiring process will be used rather than the regular hiring process defined by this flowchart.



One of the basic rules of flowchart design is that every path represented by the arrows of the flowchart must eventually lead to an end symbol. A flowchart may have more than one ending symbol. For example, the Hiring Process flowchart has two ending symbols: one labeled Temp Hiring Process and the other labeled Hire Candidate.

Using additional flowcharting shapes

The vast majority of flowcharts use just the four basic symbols described in the previous section: ovals to mark the start and end of the flowchart; rectangles to indicate processing steps; diamonds to indicate decisions; and arrows to indicate the sequence in which steps are followed.

There are, however, many more symbols you can use in a flowchart. Table 11-1 lists the most common ones. (Believe it or not, there are even more that aren't shown here.) When you create a flowchart from one of SmartDraw's built-in flowcharting templates, all of these symbols are available in the SmartPanel.

Many of the symbols shown in Table 11-1 betray their origins: They were developed in the 1960s for use in creating computer programming flowcharts. It's extremely unlikely today that any of the processes you create flowcharts for will involve punched cards or paper tape. We included these obsolete symbols in this table not just for the sake of nostalgia, but because these symbols appear in the SmartPanel.

Table 11-1	Flowchar	ting Symbols
Symbol	Name	Explanation
	Process	A task to be completed or a single step in a process.
	Start/End	Marks the start or end of the process.

Symbol	Name	Explanation
	Alternate process	Another shape often used for processes.
	Decision	A decision to be made which results in a branch in the procedure's flow. Generally, the decision should be a Yes/No question, with one arrow going in and two arrows (labeled Yes and No) going out.
	Data (Input/ Output)	A process step that obtains input from outside of the procedure or creates output that's used outside of the procedure.
	Document	A process step that creates a printed document.
	Multi-document	A process step that creates multiple printed documents. This most likely means that the step creates multiple copies of a single document; if the step really does create two or more distinct docu- ments, it's considered better to list each document as a separate step using the document shape.
	Stored data	A process step that stores data, where the means by which the data is stored (on disk files or on tape) isn't indicated.

Symbol	Name	Explanation
	Subroutine	A process step that is docu- mented somewhere by its ver own flowchart. This symbol is often used to simplify complex flowcharts by moving a large chunk of the flowchart to a separate flowchart, which can then be represented on the main flowchart as a single subroutine step.
	Database	Database, which can be any type of database, including Microsoft Access, SQL Server, or even something simple, sucl as a Word Mail Merge docu- ment or an Excel spreadsheet.
	Disk storage	Disk storage, which can be a simple file on disk or a database.
	Magnetic tape	Tape storage.
	Microfilm	Microfilm storage.
	Input	Any generic type of input, such as entering data on a keyboard.
	Punched card	Old-style IBM punch cards.

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Symbol	Name	Explanation
	Transmittal tape	Data that is written to tape devices, which can then be sent to another location where it will presumably be used as input to some other process.
	Paper tape	Old-style paper tape. If you have a device that can read or write paper tape, we suggest you take it to the <i>Antiques</i> <i>Roadshow</i> on PBS.
	Preparation	A process step that involves preparation, such as setting up your equipment.
	Manual operation	A process step that isn't auto- mated. This symbol is used only in computer program- ming flowcharts. In a manual process flowchart (such as the hiring flowchart shown in Figure 11-1), all of the steps are manual, so this symbol isn't needed.
	Loop limit	Used in computer program- ming flowcharts to indicate when a loop should stop.
	Display	Data displayed to the user.
	Delay	A step that indicates a time delay.

Table 11-1 <i>(continue</i>	ed)	
Symbol	Name	Explanation
	Note	A comment that isn't part of the procedure, but merely elaborates on one of its steps.
	Connector	Used in complex flowcharts to connect one point of the chart with another without having to draw a line. The connectors are used in pairs, and they contain a letter or number indicating which connectors belong together.
\bigcirc	Or	A type of decision that results in more than two branches. Thus, one arrow flows into this symbol and three or more arrows flow out. Each arrow that flows out of this symbol should be clearly labeled to indicate the criteria for follow- ing the arrow.
\bigotimes	Summing junction	This symbol is used when two or more paths converge. You can see an example of it in Figure 11-1, where three differ- ent paths converge to return to the Gather Resumes step.
	Off page down	Used in a complicated flow- chart to connect a path to another page.
	Off page up	Used in a complicated flow- chart to connect a path to another page.

Symbol	Name	Explanation
	Off page left	Used in a complicated flow- chart to connect a path to another page.
	Off page right	Used in a complicated flow- chart to connect a path to another page.
	Off page storage	SmartDraw calls this symbol Off Page Storage, but it's really called Off Line Storage. It's used to represent storage that is moved outside of the system after it's created — for example, documents that are moved to a filing cabinet.
	Internal storage	Represents storage that is internal to the system. Used mostly in computer program- ming flowcharts to indicate data that's stored in internal program memory.

Cross-functional flowcharts

A *cross-functional flowchart* is a chart that divides its processes into horizontal or vertical bands called *swim lanes*, which serve to categorize the steps of your process in some way. For example, Figure 11-2 shows a flowchart that documents financial account procedures organized into three swim lanes that indicate which procedures are done daily, which are done at the end of a financial period, and which are done when financial documents are required. The CD includes another example of a cross-functional flowchart: Author/ Chapter11/11-2.

Another common use for swim lanes is to show who is responsible for different steps in a flowchart. For example, a flowchart that documents how to fulfill orders might have three lanes:

 \checkmark The sales department, which handles the steps involved in creating the order.

- ✓ The orders department, which handles the steps involved in processing the order.
- \checkmark The shipping department, which handles the steps involved in shipping the order.

Besides indicating who is responsible for each step in the flowchart, swim lanes have the added benefit of documenting how the departments communicate with each other. In short, whenever a line crosses one of the lanes, a point of communication is indicated.

You find out how to create flowcharts that use swim lanes later in this chapter, in the section "Creating Swim Lanes."



Figure 11-2: A crossfunctional flowchart.

Creating a Flowchart

SmartDraw comes with several useful templates for creating flowcharts. These templates are found on the New Document tab of the Document Browser in the Flowcharts category, as shown in Figure 11-3. (Click the New button in the Single-Click toolbar to open the Document Browser.)

The templates listed in the Flowcharts category are divided into four subcategories:

- ✓ Basic Flowcharts: Contains a single template named Blank Flowchart. This flowchart begins with a single Start/End symbol to get you started. Use this template if none of the other templates match the flowchart you want to create.
- Cross Functional Flowcharts Smart Templates: Contains three templates for creating flowcharts with swim lanes. The three samples are:
 - *Blank Deployment Flowchart 1*, which creates four generic horizontal swim lanes and includes a single Start symbol.
 - *Blank Deployment Flowchart 2*, which creates four generic vertical swim lanes and includes a single Start symbol.
 - *Blank Opportunity Cost Flowchart*, which creates two vertical swim lanes labeled Value Added and Cost Added Only. This type of flow-chart lets you divide your process into steps that add value to the end result and steps that add cost.
- Specialized Flowcharts SmartTemplates: Contains ten samples that contain specialized types of flowcharts, such as data flow diagrams, event-driven process chains, and influence diagrams.
- Examples: Contains 24 examples of finished flowcharts. You can use these as starting points for your own flowcharts, or you can use them simply to study the techniques used to create different types of flowcharts and develop ideas for creating your own.



SmartDraw - Untitled Basic Flowchart 1 _ # X X Cut On Fill + B Shape . · 10 · 注 · 圖· Α Verdana Copy L Line + Line -Text Select B / U = × A. Anowhei 1 For * The Effects Deboard x Q 54 % + F Rulen Smarthlelp X Figure 11-4: The 6 0 0 G Flowchart SmartPanel is displayed S. when you D-D Join Path create a draw-Click here, then click on a shape ing using one of the flowchart Click here, then click on the bo of one shape and drag to the border of another. templates. left=0.49 top=0.45 h=0.76 w=1.51 x=1.63 y=5.50

When you create a drawing using one of these flowcharting templates, the Flowchart SmartPanel is displayed, as shown in Figure 11-4.

The Flowchart SmartPanel contains the following groups of commands to help you as you work with flowcharts:

- ✓ Build: This section of the SmartPanel contains the Flowchart symbols library, which includes all of the symbols listed in Table 11-1, plus four command buttons labeled Add Left, Add Right, Add Above, and Add Below that make it easy to add symbols to your chart. We explain how to use these commands in the section "Adding Shapes."
- Split Path: This section contains buttons that add two symbols to your flowchart, effectively splitting the process path into two forks. For more information, see the section "Splitting a Path."
- Text: Contains the text tool, which lets you add text at any location on the flowchart.
- Lines: Lets you add lines. The drop-down menu lets you choose the line shape (straight or curved), and the Line button lets you add the line.
- SmartHelp: Provides access to SmartHelp information about creating flowcharts.

Adding Shapes

If you create a flowchart from one of the templates that begins with just a Start shape, one of the first things you need to do is start adding shapes to the flowchart. You can add shapes to a flowchart using any of the standard techniques for adding shapes in SmartDraw. (See Chapter 3.)

You can more easily add shapes to a flowchart in two other ways: through the flowcharting SmartPanel or with keyboard shortcuts.

Using the flowcharting SmartPanel

The flowcharting SmartPanel makes your life much easier by providing commands specifically designed for adding shapes to a flowchart. And, as an added benefit, when you use these commands to create the shapes in your flowchart, SmartDraw automatically includes connector lines and arranges and formats the shapes for you.

To add a shape to a flowchart, follow these steps:

1. Select the shape you want to add from the symbol library.

The basic flowcharting shapes are available in the SmartPanel, but you can click the Library tab if you want to browse for additional shapes.

2. Select the shape in your flowchart that you want the new shape to be connected to.

When your flowchart contains just one shape (the Start shape), this is easy: Just select the one and only shape in the flowchart. If the flowchart contains more than one shape already, select the shape that you want the new shape to follow in the procedural sequencing of the flowchart.

3. Click one of the four Add buttons in the top section of the SmartPanel.

The four Add buttons all do the same thing; the only difference is the direction in which the flowchart is extended with the new shape.

The new shape is connected to the previous shape with an arrow.

4. To add text to the shape, just start typing.

Whatever text you type appears within the shape.

5. Continue clicking any of the four Add buttons to continue inserting shapes.

Each new shape is connected to the previously added shape.

Each time you click, another copy of the selected shape is added. Each new shape is connected to the previously added shape. If you want to change the shape, just select one of the other shapes before you click the Add button.



Figure 11-5 illustrates these steps in action.

Note that if you select a shape that already has a shape connected to it, adding a new shape in the same direction inserts the new shape between the existing shapes. The drawing is automatically rearranged to accommodate the new shape. Figure 11-6 shows an example.



Using keyboard shortcuts

SmartDraw provides several keyboard shortcuts you can use for inserting shapes into a flowchart. Select a flowchart shape, then press one of the keyboard shortcuts.

This Keyboard Shortcut	Is The Same as This Command
$Ctrl+\rightarrow$	Add Right
Ctrl+←	Add Left
Ctrl+↑	Add Above
Ctrl+↓	Add Below

You can use these keyboard shortcuts to quickly create multiple boxes in a flowchart. For example, to create the flowchart in Figure 11-7, do this:

- 1. Start with the Blank Flowchart template.
- 2. Press Ctrl+ \downarrow six times.
- 3. Press Ctrl+ \rightarrow .
- 4. Press Ctrl+ \uparrow six times.
- 5. Press Ctrl+ \rightarrow .
- **6.** Press Ctrl+ \downarrow six times.



Using Decision Symbols and Connecting Lines

Most flowcharts involve one or more decision points, at which time you must make a decision that determines which step comes next. In addition, most real-world flowcharts include connecting lines that send you back to an earlier step — a construct that's called a *loop*.

For example, Figure 11-8 shows a flowchart that includes both a decision that determines which of two steps should be taken next, as well as a couple of connecting lines that form loops.



To create this flowchart from scratch, follow these steps:

- 1. Create a flowchart from the Basic Flowchart template.
- 2. Select the Start shape.
- 3. Click the Add Below button and then type Do Some Work.

The Do Some Work box is added.

- 4. Choose the Decision shape on the SmartPanel.
- 5. Click the Add Below button and then type Time for a Break?.

The Time for a Break? decision box is added.

- 6. Choose the Process shape on the SmartPanel.
- 7. Click the Add Right button and then type Take a Break.

The Take a Break box is added.

8. Click the Decision diamond, click Add Below, and type Sigh.

The Sigh button is added.

9. Click the line between the Time for a Break? diamond and the Take a Break box and then type Yes.

The word Yes is added to the line.

10. Double-click the line between the Time for a Break? diamond and the Sigh box and then type No.

The word No is added to the line.

11. Click the Line button in the Lines section on the SmartPanel, click the left edge of the Sigh box, and then click the left edge of the Do Some Work box.

The connector line is added from the Sigh box back up to the Do Some Work box, creating the loop that you're trapped in whenever it isn't time to take a break.

If the arrowhead appears on the wrong end of your line, use the Arrowheads command in the Tools section of the Home tab to reverse it.

12. Click the Line button again, click the top edge of the Take a Break box, and then click the right edge of the Do Some Work box.

The connector line is added from the Take a Break box back up to the Do Some Work box, creating the loop you must return to when you're finished with your break.

Splitting a Path

An interesting way to create multiple paths based on a decision point is to use the Split Path commands found in the Split Path section on the SmartPanel. To use these commands, first select an existing shape in the flowchart from which you want the path to split. Then choose one of the shapes in the SmartPanel library and click one of the Split Path buttons. Two copies of the shape are inserted into the drawing, each with a connecting line to the shape you previously selected.



You can use the Split Path buttons to create shapes arising from decision diamonds, but the results will look slightly different than when you use the technique described in the previous section. In particular, the connecting lines for both paths will arise from the same point on the decision diamond, as shown in Figure 11-9.





Here are the steps to create this flowchart from scratch:

1. Follow the first five steps in the previous section ("Using Decision Symbols and Connecting Lines").

The flowchart contains a Start oval, a Do Some Work box, and a Time for a Break? decision diamond.



2. Select the decision diamond, click the Process box shape in the SmartPanel library, and then click the Split Shape (Down) button.

Two Process boxes are inserted beneath the diamond, with connecting lines that run diagonally from the top of each box to the bottom of the diamond.

- 3. Click the box on the left and type Sigh.
- 4. Click the box on the right and type Take a Break.
- 5. Double-click the connecting line that connects to the left box and type No.
- **6.** Double-click the connecting line that connects to the right box and type Yes.
- 7. Finish the flowchart by following Steps 11 and 12 in the previous section.

Deleting a Shape

One of the best things about using the smart tools to create shapes in a flowchart is that SmartDraw automatically manages the arrangement of shapes in the flowchart. This becomes especially apparent when it comes time to delete a shape that you've decided is no longer necessary.

Deleting a shape is simple: Select the shape and press the Delete key. The surprise is that when you do, SmartDraw automatically sucks up the space that was occupied by the shape, rearranging the entire drawing, if necessary, to avoid having a big gaping hole where the shape once was.

Creating Swim Lanes

The final topic for this chapter is creating cross-functional flowcharts that utilize swim lanes. To be honest, SmartDraw doesn't have a specific feature for swim lanes. Instead, the cross-functional templates cleverly use the layers feature (covered in Chapter 9) along with tables (covered in Chapter 7) to create the appearance of swim lanes.

Here's how it works:

- ✓ A drawing with a cross-functional flowchart consists of two layers: one for the flowchart, the other for the swim lanes. Figure 11-10 shows how these layers are combined to create the cross-functional flowchart.
- The Flowchart layer contains the actual flowchart, but not the swim lanes. To make adjustments to the flowchart, you must work in this layer.
- The Swim Lanes layer uses a simple table to create the lines that mark off each swim lane. To make adjustments to the swim lanes, you must work in this layer.
- ✓ The trick to placing each flowchart shape in the correct swim lane is to work from the Flowchart layer and simply drag each shape into its correct lane. SmartDraw automatically adjusts all the connecting lines for you, although you may find that you'll occasionally help it out by adjusting the routes followed by the lines. If you need to adjust the widths of the lanes to accommodate the shapes, switch to the Swim Lanes layer and make the adjustments.

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Chapter 12

Crafting Organization Charts

In This Chapter

- Looking at organization charts
- Creating basic organization charts
- Changing the layout of an organization chart
- Adding pictures
- ▶ Looking at two variations of organization charts: project team charts and family trees

Organization charts — you know, those box-and-line charts that show who works for whom, where the buck stops, and who just got the lateral arabesque — are an important part of just about every organization. At some point in the life of every organization, there comes a time when you need to formalize the organization's structure. And an organization chart is the best way to do that.

Fortunately, SmartDraw is great at creating organization charts. This chapter shows you everything you need to know.

Creating a Basic Organization Chart

Figure 12-1 shows a basic organization chart that shows the chain of command for a small manufacturing company. Like most organization charts, this one shows who's in charge and who each employee reports to. It also shows that the head guy has an assistant. The CD includes another example of an organization chart: Author/Chapter12/12-1.

SmartDraw lets you create many different variations on basic organization charts. For example, you can easily rotate the entire chart's orientation. The most common orientation is top down; Figure 12-2 shows the same organization chart oriented left to right; the CD has another example: Author/ Chapter12/12-1.



SmartDraw also provides several different ways that you can show subordinates. For example, Figure 12-3 shows the same chart again, only this time the subordinates are all placed on the same horizontal level in the chart. As you can imagine, this arrangement can quickly become unusable in larger organizations.



SmartDraw has many other unique features for creating and working with organization charts, as you learn in the remaining sections in this chapter.

Creating an Organization Chart

To create an organization chart, start a new document using one of the built-in organization chart templates. You can find these templates on the New Document tab of the Document Browser in the Org Charts category, as shown in Figure 12-4. (To get to the Document Browser, click the New button in the Single-Click toolbar located to the right of the SmartDraw button.)



The templates listed in the Org Charts category are divided into two subcategories:

- Basic Org Charts Smart Templates: Contains two templates. The first is named Blank Org Chart. You usually use this template to create a new organization chart. The second, called Blank Project Team, is used to create a common variation on the organization chart called a *team chart*. For more information on creating team charts, see the section "Creating project team charts" later in this chapter.
- ✓ Examples: Contains seven additional examples of organization charts that you can use as starting points for your own organization charts.

Adding Boxes to a Chart

Here are the steps to add a box to an organization chart:

- 1. Click the box you want the new box to be below or next to.
- 2. Click one of the following buttons in the Add Shapes section of the SmartPanel:



- Add Employee Below: Adds a new employee as a subordinate of the selected employee.
- *Add Employee to the Right:* Adds a new employee as a peer of the selected employee. The new employee appears to the right of the selected employee.
- *Add Employee to the Left:* Adds a new employee as a peer of the selected employee. The new employee appears to the left of the selected employee.
- *Add Employee Above:* Adds a new employee as a manager to the selected employee.
- *Add Assistant:* Adds the new employee as an assistant to the selected employee.
- *Add Co-Manager*: Adds the new employee as a co-manager with the selected employee.
- **3.** Click the new box and then type whatever text you want to appear in the box.

Here are a few points to ponder when you add boxes:

Always make sure the correct box is selected before you click one of the Add buttons to add a new box. For example, before you click the Add Employee Below button, make sure you first select the box that represents the new employee's manager.



- SmartDraw automatically adjusts the layout of the entire chart, if necessary, to accommodate your new box.
- ✓ An Assistant box appears beneath and to the side of its manager box. For example, Figure 12-1 shows that Shannon Jones is an assistant to the company CEO, Cameron Johnson.
- Co-managers are separate individuals who share a single spot in the organization's hierarchy. SmartDraw connects them with brackets above and below, as shown in Figure 12-5.



Deleting Chart Boxes

To delete a box from an organization chart, select the box and press Delete. If the employee has any subordinates, all the subordinates are deleted as well. And, of course, if those subordinates have subordinates, they're all deleted.

This makes it especially easy, for example, to update your organization chart if your company just laid off 10,000 people. Simply select the name of the managers, hit Delete, and *bam!* Restructuring was never so easy.

Changing the Chart Direction

As we mention earlier in this chapter, SmartDraw can automatically re-orient your organization chart into one of four directions: top down, bottom up, left to right, or right to left. Figure 12-6 shows a simple organization chart rotated to all four orientations.



5 To change the chart orientation, click the Chart Direction drop-down menu on the SmartPanel to reveal chart direction choices; then click the direction you want to apply to the chart.

Changing the Branch Style

Each of the branches in an organization chart can have one of five different branch styles. Figure 12-7 presents five variations of a simple organization chart in which a manager with three subordinates is shown with each of the five branch styles.

The two branch styles at the top of the figure arrange the subordinates in horizontal rows: The first style arranges all of the subordinates on a single row; the second style staggers the subordinates on two separate horizontal rows to save space. The three branch styles at the bottom of the figure stack the subordinates vertically: first to the left, then to the right, and finally on both sides.

To change the branch style used for a given branch of your organization chart, first click anywhere on the branch to select it. Then, click the Branch Style drop-down menu on the SmartPanel to reveal a palette of branch style choices. Choose the one you want to use.

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Changing the Box Format and Including Pictures

Each of the boxes in an organization chart can have one of three different exterior shapes (rectangle, rounded rectangle, and oval) and one of four different interior designs (basic box, photo at left, photo at top, or basic split). Combined, these choices result in a total of 12 different box formats, as shown in Figure 12-8.

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To change the style used for a box, first select the box. Then click the Box Format button to reveal the box format choices. You can then select one of the following three Box Shape options:

- 🖊 Rectangle
- Rounded Rectangle
- 🖊 Oval

In addition, you can choose one of four Box Inside options:

- 🖊 Top Align Photo
- 🛛 🛩 Left Align Photo

- Basic Split Box
- ✓ Simple Box



The first three Box Inside options actually create a table inside the shape to partition the shape into two cells. If you want, you can use the commands on the Table tab on the main toolbar to further format these table cells.

If you choose either the Top Align Photo or Left Align Photo option, you can then click the Add Photo button to insert a photo into the shape. When you click this button, an Insert Photo dialog box appears to locate the photo you want to insert into the shape.



If you don't first convert the box to either Top Align Photo or Left Align Photo, clicking the Add Photo button automatically converts the box to Left Align Photo.

Other Types of Organization Charts

Besides the basic organization chart feature we've presented so far in this chapter, SmartDraw lets you create at least two variations on the basic organization chart: project team charts and family trees. These variations look a lot like organization charts, but they use different templates and have different commands available on the SmartPanel.

Creating project team charts

A *project team chart* is a special type of organization chart that you can use to organize teams that work together on specific projects. Although the project team chart has a hierarchical organization similar to a regular organization chart, it usually conveys a more egalitarian spirit by placing the project team at the center of the diagram, with sub-teams or departments emanating from the center in all directions, as shown in Figure 12-9. The CD includes another example of a project team chart: Author/Chapter12/12-9.



SmartDraw includes three Project Team chart templates, both located in the Org Charts section on the New Document tab. The first, called Blank Project Team, begins with a single project box that you can use to build a project team chart from scratch. The other two, named Bettman Project Team and Internal-External Project Team, provide more complete project team charts from which you can start.

When you create a project team chart, the usual organization chart SmartPanel commands are replaced with the following commands:

- Add Team/Department: Adds a new box connected directly to the central project box.
- ✓ Add Team Member: Adds a new box subordinate to the selected box.
- ✓ **Demote:** Moves the selected box down one level in the team hierarchy.
- ▶ **Promote:** Moves the selected box up one level in the team hierarchy.

- ✓ Delete Team/Member: Deletes the selected box.
- ✓ Use AutoStyle: A check box that indicates whether SmartDraw should use its built-in style formats for the various levels of team members created for the project team chart.

Creating family trees

A *family tree* is a special type of organization chart used to trace a family's genealogy. SmartDraw includes an entire section of templates called Family Trees, with a total of 18 different templates. Some of these templates are for forms that are helpful when compiling a family genealogy; others are various types of family tree, such as the one shown in Figure 12-10. The CD includes another example of a family tree chart: Author/Chapter12/12-10.



When you use a Family Tree template, the normal organization chart SmartPanel commands are replaced with the following commands:

- ✓ Add Ancestor: Adds a box above the selected box.
- ✓ Add Descendant: Adds a box beneath the selected box.
- ✓ Add Spouse: Adds a spouse box that is connected to the selected box; this is similar to the Add Co-Manager command in a regular organization chart. (Note that although you can have more than two co-managers in a regular organization chart, each box in a family tree can have only one spouse. Thus, SmartDraw doesn't endorse or support polygamy.)
- ✓ Add Sibling: Adds a sibling for the selected box.
- ✓ Add Picture: Adds a picture to the selected box.

Chapter 13 Building Floor Plans

In This Chapter

- ▶ Using floor plans in your graphics
- Creating a basic floor plan
- Adding and knocking down walls
- Adding doors, windows, and other elements
- Dimensioning your floor plans

et's be clear on one point from the start: SmartDraw isn't a precision drafting tool like AutoCAD. You wouldn't want to use it to create the blueprints for a three-story building or a shopping mall. If you use it to design a bridge, and the bridge collapses, please don't sue us.

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That being said, SmartDraw does have many features in common with sophisticated drafting programs. And these features lend themselves especially well to creating simple floor plans that you can use in a variety of handy business and personal — graphics. For example:

- Every company should have an emergency evacuation plan; SmartDraw is the perfect tool for creating one.
- ✓ If you're in the event-planning business, SmartDraw floor plans are great for planning the layout of an event venue. For example, you can create the exhibit hall layout for a trade show or the seating chart for a wedding reception.
- ✓ Moving your company into a new office? SmartDraw is ideal for planning the layout of people, furniture, and equipment at the new location.
- ✓ Are you in charge of your kids' school carnival this year? SmartDraw can help you plan the layout.
- Setting up an amateur haunted house in your garage this fall? SmartDraw is the ideal tool to plan the layout of your maze and the exact position of all the spooks.
- ✓ Are you a crime or accident scene investigator? SmartDraw is a great tool for quickly creating a visual representation of a crime scene.

In this chapter, you find out the ins and outs of creating floor plans like these with SmartDraw.

Fabulous Features for Floor Plans

Figure 13-1 shows a typical floor plan created in SmartDraw. This particular floor plan shows the layout for a house's security system. Various symbols show the approximate position of various security gadgets such as keypads, door contact sensors, gas detectors, and so on.



Although floor plans like this make use of many different SmartDraw features, there are basically four features that work together to make SmartDraw especially good at creating floor plans, as follows:

Floor plan templates: SmartDraw comes with more than 50 sample floor plan templates that can get you started. These templates cover a variety of different floor plan types, including homes, kitchens, bathrooms, office buildings, churches, reception halls, restaurants, hotels, classrooms, convenience stores, and grocery stores. Odds are that you can start your floor plan with a template that's already close to what you need to create.

- ✓ Floor plan symbol libraries: SmartDraw includes hundreds of symbols for use in floor plans, including appliances, beds, bathroom fixtures, cars, computer equipment, drinking fountains, gym equipment, lighting, office furniture, sinks, tables, and vents. To find these libraries, click the Library tab in the SmartPanel. You see a few of the floor plan symbol libraries that are open by default. Then click More to browse for additional floor plan symbol libraries. (For more information about working with libraries, see Chapter 3.)
- ✓ Dimensioning: Any line in SmartDraw can have a *dimension* (also called a *length label*) that shows the actual length of the line. This feature is especially useful in floor plans, where you often want to show the exact size of specific features of your layout.

Dimensions are a basic feature of SmartDraw that you can use in any drawing, not just in floor plans. However, you're much more likely to need a dimensioning line in a floor plan than you are, say, in a pie chart or an organization chart. Thus, we saved the details of working with dimension lines for this chapter rather than Chapter 3.

✓ Layers: Many SmartDraw drawings utilize layers, but layers are especially important in floor plans. For example, even the simplest floor plan should incorporate several layers. Consider the layers you might use in an office floor plan. One layer can contain walls, windows, doors, and other immovable and permanent objects. A second layer can show furniture. A third layer can show office equipment like copiers and computers. And a fourth layer can show text labels that indicate who occupies each space in the office.

The great thing about using layers like this is that you can turn visibility on or off depending on your needs. And you can easily delete entire layers that you no longer need. For example, if you later need to use the same floor plan to create an emergency exit plan, you can save the original drawing to a new drawing, then delete the furniture and label layers and add a new layer for the exit plan.

For more information about working with layers, refer to Chapter 9.



Besides floor plans, SmartDraw also includes templates for creating landscaping plans. The main difference between the floor plan templates and the landscape templates is the symbol libraries: floor plans include symbols for architectural features such as doors and windows, while the landscape templates include symbols for landscape features such as trees, plants, and outdoor structures.

Creating a Floor Plan

The first steps when creating a floor plan from scratch are to grab a measuring tape and a pad of paper, and make a rough diagram of the actual dimensions of the space the floor plan will represent. After you have this information in hand, you can easily create the floor plan in SmartDraw.

SmartDraw comes with more than 50 templates for creating floor plans. These templates are found in the Document Browser in the Floor Plans category, as shown in Figure 13-2.

The templates listed in the Floor Plans category are divided into the following subcategories:

Basic
Bathrooms
Bedrooms
Building Plans
Classrooms
Electrical Plans
Emergency Plans
Event Plans

Gyms Home Plans Hotels Kitchens Living & Dining Rooms Office Plans Restaurant Plans Stores


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When you create a drawing using one of these templates, the Floor Plan SmartPanel shown in Figure 13-3 is displayed.

You find the following groups of commands on the Floor Plan SmartPanel:

- ✓ Construction: This section contains the Add Single Wall command, which lets you add a wall to a floor plan, as well as several commonly used symbol libraries for creating floor plans. For more information about these features, see the sections "Adding a Wall" and "Adding Doors and Windows" later in this chapter.
- Dimensions & Area: This section contains buttons for working with dimensions and calculating a room's square footage. For more information, see the following section, "Showing Dimensions."
- ✓ Adjust: Contains commands for adjusting the walls and other elements of your floor plan. For more information, see the sections "Adding Corners" and "Busting Open a Wall" later in this chapter.
- SmartHelp: Provides access to SmartHelp information about creating floor plans.



Showing Dimensions



Dimensions are lines that indicate the size of the walls in your floor plan. You can easily show or hide dimensions for an entire drawing by clicking the Show Dimensions button in the SmartPanel when nothing is selected in the drawing. This shows or hides the dimensions for every wall in the drawing. Figure 13-4 shows a floor plan both with and without dimensions.



You can show the dimensions for an individual wall by right-clicking the wall and choosing Show Dimensions from the context menu that appears. The Show Dimensions dialog box opens, as shown in Figure 13-5.

You can set the following options for the dimensions:

- ✓ Show Dimensions: Choose when to show dimensions. Your choices are Never, Only When Selected, or Always.
- ✓ Show: This setting lets you determine how SmartDraw measures the dimension. You have three choices for this setting:

- The distance between the end points of the line: Measures the actual distance between the two end points of the line (typically only useful for a line that is not straight).
- The total length of the line: This measures the actual length of the line. If the line has more than one segment, the dimension adds all the segments together.
- The length of each line segment: If you choose this option, a separate dimension is shown for each segment of the line. This is the most common setting.
- ✓ Extension Lines: This check box determines whether SmartDraw includes the *extension lines*, which offset the dimension line from the main line. If you deselect this setting, the dimension is shown as simple text adjacent to the wall.

	Show Dimensions	8
	Show Dimensions	OK
Figure 13-5 : The Show	Show The distance between the end points of the line The total length of the line The length of each line gegment The line of the shape	Eont
Dimensions dialog box.	✓ Extension lines	

dialog

At times, you'll want to insert a dimension line in a floor plan to show some arbitrary distance that doesn't correspond to a fixed wall, such as the width of a hallway or the distance between a file cabinet and a wall. To do that, click the Measure Distance button on the SmartPanel, click in the drawing where you want the dimension line to begin, and then click again where you want it to end. The dimension line is added to your drawing.

The last button in the Dimensions & Area section of the SmartPanel lets you quickly determine the square footage of any rectangular area of your floor plan. To measure the square footage, click the Measure Area button on the SmartPanel. Then, drag a rectangle around the area of the floor plan that you want to measure.

As Figure 13-6 shows, this command actually inserts a rectangle object into the floor plan, specially formatted to show the square footage of the area it contains. In the figure, you can see that the office occupies 208 square feet.

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Adding a Wall

Unless you're incredibly lucky or just don't pay much attention, odds are that the floor plans provided by the SmartDraw templates won't match up exactly with the space your floor plan happens to represent. In that case, you have to modify the floor plan to more closely resemble your needs.

To do that, you'll most likely need to add or remove walls.

First, check to see if the drawing has more than one layer by checking for tabs at the bottom of the drawing area. If the drawing does have more than one layer, click the one labeled Floor Plan; it's the one that contains the walls.

Removing a wall is easy: Just click the wall to select it and then press the Delete key. Poof! The wall is gone.

Be careful, though: Sometimes deleting a wall deletes the entire structure! If that happens, just press Ctrl+Z to undo the overzealous deletion.

To add a wall, follow these simple steps:



1. Click the Add a Single Wall button (shown in the margin).

2. Click in the drawing where you want the wall to start.

3. Click in the drawing where you want the wall to end.

That's all there is to it.

If you draw a wall that starts at one of the end points of an existing wall, SmartDraw automatically combines the walls to create a single multisegment wall.

You can change a wall's angle by clicking the wall to select it, then dragging the rotate handle, which appears near the end point of the wall. Or you can drag one of the wall's endpoints to a new location.

Adding Doors and Windows

Besides walls, the next two most important elements in a floor plan are doors and windows. Fortunately, SmartDraw makes it easy to add a door or window to a wall. Here are the steps:

1. First draw the wall.



When you initially draw your walls, pay no attention to the need for doors or windows: Draw your walls right through them. In SmartDraw, doors and windows are symbols that sit on top of the walls. So when you add a door or window, the solid line that represents the wall is overlaid by the open space represented by the door or window.

2. Find the door or window shape you want to add to the wall.

Near the top of the SmartPanel is a good selection of various types of doors and windows.

3. Drag the door or window on top of the wall.

As you approach the wall, the mouse pointer changes to an anchor shape. When it does, you can release the mouse button and the door or window snaps into place on the wall.

After you've snapped the door or window into place on the wall, you can adjust the door or window in one of the following three ways:

- ✓ To reposition the door or window along the wall, click the door or window and drag it to the correct position. As long as you don't move the mouse too far away from the wall, the door or window remains snapped to the wall.
- If a door or window opens in the wrong direction, select the door or window and then click the Flip button on the Design tab on the main toolbar to flip the door or window to the correct side of the wall.



✓ If the door or window is the wrong size, click the door or window to select it. The size appears adjacent to the door or window. Double-click the size and then type the correct size for the door or window. When you press Enter, the door or window is resized accordingly.

Adding Corners

The Add Corner button (shown in the margin) lets you split a wall into two segments. To add a corner, click the Add Corner button on the SmartPanel. Then, click the wall you want to add the corner to, at precisely the spot where you want to add the corner. The line is split into two segments at the spot where you click.

You can then drag the end of the new segment to change its angle. Or for a more interesting effect, you can grab either segment in the middle and drag it to create a new wall segment that connects the original two segments at a right angle.

To see how this works, follow these steps:

1. Create a new blank floor plan drawing.

Click the New Drawing button in the Single-Click toolbar to the right of the SmartButton, then choose Blank Floor Plan from the Floorplans group.

2. Click the Add Single Wall tool, and then draw a vertical wall.

The size doesn't matter: you aren't drawing an actual scale floor plan here.

3. Click the Add Single Wall tool again, then draw a horizontal wall that starts at the top of the wall you created in Step 2 and goes off the left for a ways.

Your floor plan should now resemble Figure 13-7.

- 4. Click the Add Corner button.
- 5. Click about a third of the way down the vertical wall to create a corner.

The dimension of the vertical wall changes to indicate that the wall segment has been split into two segments, as shown in Figure 13-8.



Don't panic if it doesn't look like you've succeeded in adding a corner. You won't see the actual corner until you complete the next step.



6. Grab the middle of the upper segment of the vertical wall and move it to the left.

A new horizontal segment is added to connect the upper vertical segment to the lower segment, as shown in Figure 13-9. Now you can see that you've succeeded in adding a corner to the wall.

Pretty cool, eh?



Busting Open a Wall

The Create Opening SmartPanel button lets you add an opening in the middle of an existing wall, without actually splitting the wall into two walls. To create an opening in a wall, follow these steps:

1. Draw the wall.



- 2. Click the Create Opening button.
- 3. Click the wall at the location where you want the opening to appear.

The opening appears in the wall. Initially, the opening is 4 feet in length.

4. To adjust the size of the opening, drag either end of the opening.

As long as the opening is selected, the dimensions of the opening appear in the drawing area, as shown in Figure 13-10.



Another way to adjust the size of the opening is to double-click the size of the opening and then type the correct size. For example, if you want the opening to be exactly 7' 6", double-click the opening and type **7' 6**". The size of the opening is adjusted accordingly.

Figure 13-10: A wall with an opening.



Chapter 14 Making Mind Maps

In This Chapter

- Looking at mind maps
- Creating a simple mind map
- Converting a mind map to an outline or an org chart
- Converting a mind map to a Gantt chart

famous vice president once said, "What a waste it is to lose one's mind. Or not to have a mind at all is very wasteful. How true that is."

He wouldn't have had to worry as much about losing his mind if he had just used SmartDraw to create a *mind map*.

Not that a mind map is a map that tells you where you left your brain. More than one vice president, and a few presidents, as well, could've used such a map. So could we, on occasion.

Instead, a *mind map* is a special type of business graphic that you can use for studying a problem, planning a course of action, making a decision, and so on.

Based on the fact that we included an entire chapter on making mind maps in this book, you might reasonably infer that SmartDraw is pretty good at creating mind maps. You would be correct in that inference.

Understanding Mind Maps

A mind map is essentially a visual representation of a traditional outline. But instead of presenting things linearly (as in an outline) or hierarchically (as in an organization chart), mind maps are organized radially. The central question or concern is represented by a box in the middle of the page. Then, ideas that arise from that central box are arranged around it, connected with lines that resemble the spokes in a wheel. Figure 14-1 shows an example of a typical mind map.



Types of boxes in a mind map

You can use the following three different types of boxes in a SmartDraw mind map:

- ✓ The *main topic* is the central box in the mind map, to which all other boxes are ultimately connected. A given mind map can have only one main topic box.
- A topic is a box that is connected directly to the main topic. Topic boxes are arranged radially around the main topic box.
- A subtopic is a box that is connected to one of the topic boxes, or to another subtopic box.

Mind maps versus outlines and organization charts

Notice that the mind map shown in Figure 14-1 could be represented in a simple outline form like this:

```
Computer Upgrade Decision
   Which Vendor?
        Price
        Quality
        Service/Support
    Buy vs. Lease
   Which Operating System?
        Which Vista Edition?
        32 bit or 64 bit?
```

```
Consider Linux?
Which Hardware?
CPU
RAM
Disk
Video Card
Monitor
```

However, the hierarchical nature of an outline can be stifling and can inhibit creativity. For starters, outlines imply that the order in which items are listed represents their importance — that is, the outline creates the impression that choosing a vendor is more important or should be done before deciding whether to buy or lease, which operating system to use, or which hardware to order.

In contrast, a mind map's graphical orientation promotes brainstorming and creative thinking. Looking at the mind map in Figure 14-1, none of the boxes that connect to the central hub appear to be more or less important than any of the others.

We can also represent the mind map in Figure 14-1 in a more hierarchical manner using an organization chart, as shown in Figure 14-2.



SmartDraw doesn't have the direct ability to convert a mind map to an organization chart, but it does have the ability to export a mind map to a text file, then import the text file to an organization chart — effectively converting a mind map to an org chart. (See the "Exporting an Outline" section later in this chapter for more information.)



However, the organization chart shares a similar inherent problem with the outline: The items nearer the top of an organization chart are implicitly more important than the items near the bottom. The implicit hierarchical ranking of items can cause you to draw conclusions that aren't accurate or appropriate.

Mind maps and the sides of your brain

One theory on why mind maps are superior to outlines or organization charts for certain types of applications is that unlike rigid hierarchical outlines or organization charts, mind maps engage both sides of your brain. In case you don't remember the details of the left-brain/right-brain breakdown, here's a summary:

- ✓ The left side of the brain is used more for logic, facts, and details.
- ✓ The right side of the brain excels at feelings, philosophy, imagination, symbols, and images.

The theory, of course, is that people favor either the left brain or the right brain. In other words, one side of your brain is dominant over the other, and whether you are left-brain or right-brain dominant determines how you approach every aspect of life, including problem solving and reasoning.

We don't know if all of that is true, but it may well be that the reason mind maps work well as problem-solving and analysis tools is that they incorporate both sides of the brain. The hierarchical part of a mind map engages the left side, which loves the logic and order of it all. But the graphic presentation of the mind map in which thoughts are shown emanating from the center of the chart instead of from the top helps to engage the right side.

And once you get both sides of your brain going, there's no stopping you.

Creating a Mind Map

SmartDraw has several example templates that you can use to get a head start on your mind maps. But for the purposes of this chapter, we create one from scratch. Specifically, we create the Computer Upgrade Decision mind map that we show in Figure 14-1.

Fire up SmartDraw and then follow these steps:

1. Click the New button in the Single-Click toolbar.

The Document Browser opens, with the New Document tab showing.

2. Select Mind Maps in the list of template categories.

The mind map templates appear, as shown in Figure 14-3.



3. Click the Blank Mind Map template.

SmartDraw creates a blank mind map, as shown in Figure 14-4. The blank mind map consists of just a single rectangle that represents the central starting point for the mind map.

The Edit area of the SmartPanel includes several buttons that are designed to work with mind maps:

- *Add Topic:* Adds a new box connected directly to the central box. Note that the new box is added to the center box regardless of which box is selected.
- *Add Subtopic:* Adds a new subtopic box subordinate to the selected topic box.
- *Demote:* Moves the selected box down one level in the mind map hierarchy.
- *Promote:* Moves the selected box up one level in the mind map hierarchy.
- *Delete:* Deletes the selected box. Note that if the box has any subtopic boxes connected to it, the subtopic boxes are deleted as well.
- *Use AutoStyle:* A check box that indicates whether SmartDraw should use its built-in style formats to distinguish the various levels of topics and subtopics in your mind map.

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4. Select the main topic box and then type the text for your main topic.

In this example, type Computer Upgrade Decision.



5. Click the Add Topic button for each topic you'd like to add.

Click it four times to create four topic boxes, arranged radially around the main topic.

6. Click each of the topic boxes and type the text for the topic.

For the Computer Upgrade Decision mind map, name the topic boxes Which Vendor, Buy vs. Lease, Which Operating System?, and Which Hardware.

Figure 14-5 shows what the mind map looks like at this point.



7. Click the topic box that you'd like to add subtopics to and then click the Add Subtopic button on the SmartPanel for each subtopic you'd like to add.

If you're following along with the example, use the Which Vendor? topic box and click Add Subtopic three times. Three subtopic boxes are added to the Which Vendor box.



8. Click each of the new subtopic boxes and type the text for each subtopic.

For this example, type Price, Quality, and Service/Support.

Figure 14-6 shows how the mind map now appears.



9. Repeat Steps 7 and 8 for any remaining topic boxes that you'd like to add subtopics to.

For the Which Operating System? topic, add three subtopics and label them Which Vista Edition?, 32 bit vs. 64 bit?, and Consider Linux?.

For the Which Hardware? topic, add five subtopics and label them CPU, RAM, Disk, Video Card, and Monitor.

When you're finished, the mind map resembles the mind map shown in Figure 14-1.

That's all there is to it! You've created your first mind map. After you finish the first draft of your mind map, you can modify or embellish it in many ways. Here are but a few:

 \checkmark You can rearrange the order of the topics cluster around the main topic. To do so, just grab one of the topic boxes and drag it to a new location.

If you drag the topic too far away from the main topic, the topic box detaches from the mind map. You can easily reattach it by dragging it back close to the topic box.

- ✓ You can delete a topic or subtopic by selecting the box you want to delete and pressing the Delete key. Any subtopics beneath the box you delete are deleted.
- ✓ You can format your mind map. For example, you might want to change the color of some boxes to emphasize them. Or you might want to insert pictures into some of the boxes to illustrate their concepts rather than explain them with text.

Exporting an Outline

Because a mind map is really just a fancy way to represent an outline, SmartDraw includes the ability to save the outline represented by a mind map as a text file. You can then import this text file into other programs. For example, you can import the text file into Word to include the outline in a document.

To export an outline, follow these steps:

- 1. Open your mind map.
- 2. Click the Export Outline button found on the SmartPanel.

The Export Org Chart as Text dialog box, shown in Figure 14-7, appears.

- 3. Locate the folder where you want to save the file and type the filename.
- 4. Click Save.

The file is saved.

Just for kicks, Figure 14-8 shows a Notepad text file created with the Export Outline feature. After you export the outline, you can import it into any program that can read simple text files.





Converting a Mind Map to a Gantt Chart

A *Gantt chart* is a special type of chart used to plan and track the progress of projects. Although SmartDraw isn't a comprehensive project-management tool, you can use it to create simple Gantt charts. One of the more interesting capabilities of SmartDraw is that it can convert a mind map directly to a Gantt chart at the click of a button.

To convert a mind map to a Gantt chart, first click the drop-down menu in the Change Diagram section on the SmartPanel. Then, choose Project (Gantt) Chart. SmartDraw responds by adding a separate layer to your drawing, called Project (Gantt) Chart, as shown in Figure 14-9.

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Each box in the mind map is converted to a task item in the Gantt chart. Each item is scheduled with a start date, an end date, and a duration. Then, the schedule is graphically shown in the right-hand portion of the chart.

By default, the time schedule is shown in months. However, you can change that by using the Timescale drop-down menu on the SmartPanel. The options are Months with Days, Weeks with Days, Weeks, Ouarter with Months, and Year with Months.

Initially, all of the items in the chart are assigned an arbitrary schedule. To finish the Gantt chart, you need to adjust the start date and either the end date or the duration for each item separately.

You can also create *dependencies*, which let you indicate that you can't start a particular task until some other task is finished. To create a dependency, select the time bar for the task that's dependent, press and hold the Shift key, and then select the time bar for the task that the first task is dependent on. Then, click the Add Dependency button on the SmartPanel. SmartDraw adjusts the schedule so that the first task you selected won't start until the second task is finished.



When you convert a mind map to a Gantt chart, the Gantt chart is added to the drawing on a new tab. The original mind map remains in the drawing, on a tab called Mind Map. Thus, you can return to the mind map at any time by clicking the Mind Map tab at the bottom of the drawing window.

Chapter 15 Working with Live Maps

In This Chapter

▶ Looking at all the map templates that come with SmartDraw

- ▶ Getting maps from Google Maps
- Adding data points to maps

And aps are important in many different types of business graphics, from the simplest example of a map that shows the location of your business to more complex graphics that show sales regions, routes between locations, or perhaps even data associated with locations on the map, such as sales or demographic information.

SmartDraw actually has two distinct types of maps that you can work with. The first type includes simple templates that contain predrawn maps. The second are live maps, which you import from Google Maps or Google Earth and incorporate into your drawings. This chapter covers both features.

Working with Map Templates

SmartDraw comes with more than 200 templates containing maps of just about every part of the world. You'll find maps of the United States, including county maps of each state of the union, plus maps of North America, South America, Europe, the United Kingdom, Asia, Africa, and Australia, as well as maps of the entire world. SmartDraw's map templates are organized into several different categories, including these:

Sales Maps: These maps are designed to represent regional sales areas. Some of them include tables you can fill out to provide the name of your sales representative for each area. For example, Figure 15-1 shows a map of a sales region comprising several states in the western United States, with a table that lists the representative and contact information for each state. This drawing was created from the Region - Western -2 template. The CD includes another example of a sales map: Author/ Chapter15/15-1.



Figure 15-1: A sales region map.

> ✓ **County Maps:** Show the counties for all 50 states in the United States. For example, Figure 15-2 shows the county map for the state of Louisiana. In the county maps, each county is a separate SmartDraw shape. Thus,

you can select any county in the map and change its color or apply other formatting.

- Country Maps: Provide basic outline shapes of most of the countries of the world. For example, Figure 15-3 shows a map of Japan.
- **World Maps:** Provide various maps of the world or entire continents.

To create a drawing based on any of these templates, open the Document Browser by clicking the New button, select Maps from the list of template categories on the New Document tab, and then select your template.



When you create a drawing from a map template, the SmartPanel includes two groups of library symbols: Legends and Pins & Stickers. The Legends group lets you create one of three kinds of legends on your map: a legend with four regions, a legend with six regions, and a legend with pushpins. Figure 15-4

shows all three of these legend symbols. (The legends are inserted as simple tables, so you can add or delete rows for additional symbols as needed. For more information about working with tables, see Chapter 7.)



The Pins & Stickers group contains symbols that are useful on maps, including pushpins, flags, compass points, dot stickers, arrows, and so on.

Introducing Live Maps

Live Maps is a SmartDraw feature that lets you incorporate maps directly from the Google Maps Web site into your drawing. With Live Maps, you aren't limited to the 200+ map templates that come with SmartDraw; instead, you can use any map you can find on Google Maps.

For example, Figure 15-5 shows a drawing that incorporates a map of downtown Clovis, California, and shows the finish of the fourth stage of the 2009 Amgen Tour of California bicycle race. This is a Google Maps map, with the route on top of the map (courtesy of SmartDraw's standard drawing tools).

To create a map like this, fire up SmartDraw and follow these steps:

1. Click the New button to bring up the Document Browser and then choose the Blank Interactive Map template from the New Document tab.

A blank live map appears, as shown in Figure 15-6.

2. On the SmartPanel, click Insert Map.

Google Maps opens in a special window, as shown in Figure 15-7.





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3. Enter the location of your map in the text box and click Go.

You can enter either a place name (such as a city, state, national park, or other landmark), a street address, or a zip code. However you identify the location, Google Maps finds it and displays the map.



4. Use the Zoom control to zoom in to the location you want to include in your map.

You can also zoom by spinning the scroll wheel on your mouse.

You can move (pan) the map by holding the mouse button anywhere on the map and dragging the mouse.

5. When you have isolated the area you want to include in your map, click Import to SmartDraw.

The map is copied into SmartDraw, as shown in Figure 15-8.

6. Add symbols, legends, or other features you want to include in your map.

You can use any of SmartDraw's standard drawing tools.

Here are a few additional points to keep in mind when you work with maps imported from Google Maps:

- ✓ The imported map is itself a picture. Thus, you can manipulate the map via the Picture tab. For example, if you need to crop the map, you can use SmartDraw's Pan & Zoom tool.
- ✓ You can change the map imported from Google Maps by selecting the map and clicking the Edit Map command in the SmartPanel.



✓ If you prefer, you can use a satellite view instead of a map view, or you can use a hybrid view which includes both the street map and the satellite view. Figure 15-9 shows the bicycle route road map with satellite view instead of street map view. (To use satellite or hybrid view, choose Satellite or Satellite + Roads from the Map Type drop-down menu in the Google Maps window.)



Figure 15-9: A map in SmartDraw using satellite view.

Adding Data Points to a Live Map

Live Maps has an interesting feature that lets you plot data geographically on the map before you import it into SmartDraw.

One use of this feature might be to show the relative sales figures for several cities in a state. For example, suppose you have an Excel spreadsheet file that contains the following data:

City	Sales
Los Angeles	300
San Francisco	250
San Diego	120
Sacramento	110
Fresno	75
Bakersfield	50

You could use this spreadsheet to automatically create the map shown in Figure 15-10. Here, the sizes of the circles on the map indicate the relative amount of sales from each city.

What makes this feature so cool is that not only is the size of each circle determined by the sales amount, but the position of each circle on the map is determined by Google Maps based on the name of the city. The location information can be the name of a city, state, or other well-known location, a specific street address, or even a specific position given in terms of latitude and longitude.



Figure 15-10: A map with data points inserted by Google Maps.

To create points like this on a map, follow these steps:

- 1. Create an empty map page using the Blank Interactive Map template.
- 2. Click the Insert Map button on the SmartPanel.

The Google Maps interface appears. Refer to Figure 15-7.

3. Navigate to the map you want to import.

For example, you can type **California** in the text box and click Go.

4. Click Add Data & Markers.

The first page of the Import Data to Map Wizard opens, as shown in Figure 15-11.

This first page gives you the option of uploading the data to be plotted on the map from a file or typing the data in yourself.



5. Click the I Want to Import Data from a File option and click Next.

The next screen of the Import Data to Map Wizard appears, as shown in Figure 15-12.

6. Click Browse.

The Choose File dialog box opens, letting you scour your hard disk for the file you want to upload.

7. Select your file and then click Open.

You're returned to the Import Data to Map Wizard.

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8. Click Next.

The Wizard asks which sheet in your spreadsheet file you want to use, as shown in Figure 15-13.

(Note that this step may not appear if the spreadsheet file has only one sheet.)





9. Select the sheet you want to import and then click Next.

The wizard step shown in Figure 15-14 now appears.

10. From the first drop-down menu, select the spreadsheet column that contains the data you want to plot.

The drop-down menu shows all of the columns in the spreadsheet. Choose the one that contains the data you want to use to determine the size of your markers. (In this example, the column is named Sales.)

11. If you want to include labels next to the markers, choose the columns that contain the label text from the second drop-down menu.

For this example, the City column will do.

12. Place a checkmark in the check box for the column that contains the location information.

In this example, only one column contains data that appears to be location information, so this column is already selected.

13. Click Next.

The final Import Data to Map Wizard screen appears, as shown in Figure 15-15.

14. Click Finish.

The markers are added to the map, as shown in Figure 15-16.

15. Click Import to SmartDraw.

The map is imported into SmartDraw.

Part III: Creating Business Graphics _





Part IV Using SmartDraw with Microsoft Office and the Web



"Okay-looks like the 'Dissolve' transition in my SmartDraw chart needs adjusting."

In this part . . .

Since the series of the series

Chapter 16

Exporting SmartDraw Graphics

In This Chapter

- Moving drawings into Office
- Manipulating your drawings after you put them into Word
- Creating a PDF from a drawing
- Other options for exporting SmartDraw drawings

SmartDraw has excellent integration with Microsoft Office applications, including built-in tools that make it a snap to transfer your finished creations into Word, Excel, or PowerPoint. In addition, SmartDraw has a powerful export capability that lets you save your drawings in a variety of different file formats so that you can use them in other programs.

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This chapter covers the basics of using SmartDraw alongside Microsoft Word, Excel, and PowerPoint, converting drawings to PDFs, and saving drawings in Mac-friendly formats, as well as exporting drawings to common graphics formats. The next chapter covers some advanced tools that are useful when exporting SmartDraw graphics to PowerPoint.

Transferring a SmartDraw Drawing to Microsoft Office

The following sections present four basic ways that you can transfer a SmartDraw drawing into Microsoft Office. We illustrate all four of these techniques using Microsoft Word; however, the procedures are the same for Excel and PowerPoint.

Copying and pasting

By far the easiest way to transfer a SmartDraw drawing into Microsoft Office is to simply copy and paste the drawing. Here are the steps for Microsoft Word; the procedure for Excel or PowerPoint is the same:

- 1. Fire up SmartDraw and open the drawing you want to insert into Microsoft Office.
- 2. Open Microsoft Word and then open the document you want to insert the drawing into.
- 3. Switch back to SmartDraw.
- 4. Press Ctrl+A to select the entire drawing.
- 5. Press Ctrl+C to copy the drawing to the clipboard.

If you prefer to use the main toolbar, go to the Home tab, find the Clipboard group, and click Copy.

- 6. Switch back to Word.
- 7. Place the insertion point at the exact location where you want to insert the SmartDraw graphic.
- 8. Press Ctrl+V to paste the drawing into the document.

Or if you prefer, click Paste on the Home tab.

Your drawing is inserted into your Word document.

While your SmartDraw drawing is in your Word document, you're likely unhappy with the results. So you'll need to manipulate the inserted drawing using the techniques covered later in this chapter, in the section "Fixing Up Your SmartDraw Drawings in Word."

Dragging and dropping

You can also use the mouse to drag and drop a SmartDraw graphic into an Office program. Here are the steps for Microsoft Word; the procedure for Excel and PowerPoint is the same:

- 1. Start SmartDraw and open the drawing you want to insert into Microsoft Office.
- 2. Start Microsoft Word and open the document you want to insert the drawing into.
- **3**. Arrange the programs on the screen so that both are visible at the same time.



4. Switch to SmartDraw and press Ctrl+A to select the entire drawing.

If you want to copy just part of the drawing, you can select just the parts you want to copy.

5. Press and hold the Ctrl key, point to any part of the drawing that you've selected, press and hold the mouse, and drag the drawing to Microsoft Word.

When you release the mouse button, the drawing is copied into the Word document.

You'll probably need to fix up the drawing a bit in Word after you've pasted it in. For more information, see the section "Fixing Up Your SmartDraw Drawings in Word" later in this chapter.

Using the Insert menu

Word, Excel, and PowerPoint let you insert a SmartDraw file into your documents without the need to first open the drawing in SmartDraw.

Here are the steps for Word; again, the procedure for Excel and PowerPoint is the same:

- 1. Start Microsoft Word and open the document you want to insert the drawing into.
- 2. Move the insertion point to the location where you want to insert the drawing.
- 3. Click the Insert tab on the main toolbar, find the Text group, and click the Object button.

The Object dialog box appears. This dialog box has two tabs: Create New and Create from File. The Create New tab lets you create a new object from scratch; the Object Type box lists all of the different types of objects you can create. If you scroll down the list, you find SmartDraw listed among the choices.



Although it's technically possible, we don't recommend that you create new SmartDraw drawings from within Word. Instead, create all of your SmartDraw graphics directly in SmartDraw.

4. Click the Create from File tab.

The Create from File tab of the Object dialog box appears, as shown in Figure 16-1. This tab of the Object dialog box lets you select an existing file to insert into your Word or other Office document.



5. Click the Browse button.

A standard Windows file browser appears.

6. Locate and select the SmartDraw drawing you want to insert and then click Insert.

You return to the Object dialog box.

7. (Optional) Select the Link to File check box.

We recommend that you leave this check box deselected. If you select it, any changes you later make to the SmartDraw drawing are automatically incorporated into the copy of the drawing contained in your Word document.

This linking might sound like a good idea at first, but in most cases, it isn't. For starters, linking to the file slows down Word's performance whenever you edit the document. And perhaps more importantly, you may return to the drawing months or even years from now and make changes to it, completely forgetting that you linked to it in a Word document. Thus, when you change the SmartDraw drawing, you inadvertently change the Word drawing, too.

Use the Link to File feature only in situations where you anticipate that you'll edit the SmartDraw drawing and you're certain that you want those edits automatically incorporated into the Word document.

8. Click OK.

Your computer whirs and grinds for a moment while it digs up the file and inserts it into your document.

Don't despair; it may take a few moments for the drawing to appear in your Word document, but it will eventually show up.


9. Rejoice when the drawing appears in your document.

Marvel at the sophistication that's going on under the covers, which enables a drawing created by a program written by a small company in San Diego to be inserted directly into a program written by the 100,000 or so programmers who work for Microsoft up in Seattle.

(Actually, you should marvel any time anything works in Microsoft Word. But that's a story for another book.)

You probably won't be happy with the appearance of your SmartDraw drawing. So you'll need to brush it up a bit; see the section "Fixing Up Your SmartDraw Drawings in Word" later in the chapter.

Exporting to Office

SmartDraw includes three handy buttons, right at the top of the program on the Single-Click toolbar, that let you export a drawing directly to Word, Excel, and PowerPoint:

Button

What It Does

Exports the current drawing directly to Word.



Exports the current drawing directly to Excel.

Exports the current drawing directly to PowerPoint.

When you click one of these buttons, SmartDraw automatically exports the drawing to the appropriate Office program. If the program (Word, Excel, or PowerPoint) is already running, SmartDraw inserts the drawing at your most recent position within the open document. Otherwise, SmartDraw starts Word, Excel, or PowerPoint, creates a new document, and then inserts the drawing into the new document.

As an example, here are the steps to insert a SmartDraw drawing into an existing Word document:

- 1. Fire up SmartDraw and open the drawing you want to insert into Microsoft Office.
- 2. Open Microsoft Word, open the document you want to insert the drawing into, and place the insertion point at the exact location where you want to insert the SmartDraw graphic.

- 3. Switch back to SmartDraw.
- 4. Click the Export to Word button.

The drawing is inserted into the document at the location of the insertion point.

You most likely need to polish up the drawing a bit in Word. Follow the steps outlined in the section "Fixing Up Your SmartDraw Drawings in Word," which comes next.

Fixing Up Your SmartDraw Drawings in Word

Getting a SmartDraw graphic into Word is easy, but that's only half the battle. After you get the drawing into Word, you'll probably want to work with it a bit to incorporate it into your document exactly the way you want it. For example, you might want to move it, change its size, or allow your document's text to flow around it. For example, Figure 16-2 shows a SmartDraw graphic that has been resized and repositioned with text wrapped around it.



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The following sections show you how to perform these tricks.



If your SmartDraw graphic appears completely cut off at the bottom so that you see only the bottom half-inch or so of the drawing — as shown in Figure 16-3 — you probably have your paragraph spacing set to an exact value rather than single line spacing. You can quickly fix this problem by opening the Paragraph dialog box. (On the Home tab on The Ribbon, find the Paragraph group and click the dialog box launcher at the bottom-right corner.) Then change the line spacing to Single.

Wrapping text around your drawing

When you first insert a drawing, Word places it in line with the text. Any text that appears before or after the drawing is lined up with the bottom of the drawing; no text appears alongside the drawing.

In many cases, you want the text to wrap around the drawing. The text shown in Figure 16-3 is wrapped around a SmartDraw drawing.



To apply a text wrapping around your drawing, right-click the drawing and choose Format Object. Then, click the Layout tab to bring up the layout options, shown in Figure 16-4. The only options you need to concern yourself with for now are the Wrapping Style options.



Choose one of the following layout options:

- ✓ In Line with Text: This is the default wrapping option, and it's the one you're least likely to use. It places the drawing in line with your text. The height of the line on which the drawing appears is adjusted to match the height of the drawing. In most cases, this wrapping doesn't look right.
- ✓ Square: Wraps the text squarely around the drawing. This is the option used in Figure 16-2.
- ✓ Tight: Word figures out where the actual edges of the drawing are and snuggles the text up as closely as possible.
- Behind Text: This option lets the text spill right over the top of the drawing, as if the drawing weren't even there. The drawing appears behind the text.
- ✓ In Front of Text: This option places the drawing on top of the text. The drawing might obscure some of the text, so use this option only if that's what you want.



When you choose Tight wrapping (or any other type of wrapping besides In Line with Text), the drawing becomes a free-floating object and is no longer tied to a specific position within the text. You can drag the drawing to any location you want. You can even put it right in the middle of a paragraph, and Word wraps the text around both sides.

Sizing and stretching a drawing

In most cases, you need to resize your drawing after you insert it. To do so, click the drawing to select it. Notice the eight handles that appear around the drawing. You can drag any or all of these handles to resize the drawing. When you click one of the corner handles, the proportion of the drawing stays the same as you change its size. When you drag one of the edge handles (top, bottom, left, or right) to change the size of the drawing in just one dimension, you distort the drawing's shape as you go.

Stretching a drawing by dragging one of the edge handles can dramatically change the drawing's appearance. For example, you can stretch an object vertically to make it look tall and thin or horizontally to make it look short and fat. (If the drawing includes a picture of yourself, we recommend stretching it vertically.)

Cropping a drawing

Sometimes, you want to cut off the edges of a drawing so that you can include just part of the drawing in your document. When you insert a drawing object in Word, you can crop the drawing by right-clicking the drawing and choosing Format Object. Click the Picture tab in the Format Object dialog box to show the various picture options, as shown in Figure 16-5.

	Format Object	:t						2 🛙
	Colors and Line	rs Size	Layout	Pic	ture	Text Box	AltText	
	Crop from							
	Left:	0*	۲	Iop	¢	0"	-	
	Right:	0*	-	Bot	tom:	0"	•	
	Image control							
	<u>C</u> olor:	Automatic		~				
	Brightness:	•	311	>	50 %	-		
	Contrast:	<	an	>	50 %	•		
Figure 16-5: Picture options.	Compress)				[ОК	Reget

Part IV: Using SmartDraw with Microsoft Office and the Web

To crop the drawing, you must manually set the amount of the drawing you want to remove from the left, right, top, and bottom. You'll undoubtedly have to experiment a bit before you get the drawing cropped correctly, but it shouldn't take you more than a few attempts to get it right.

Note that this dialog box also lets you change the image brightness and contrast.



If you decide later that you don't like the cropping, click the Reset button in the Format Object dialog box.

Applying a drawing border

You can apply a border to a drawing by right-clicking the drawing and choosing Format Object. Click the Colors and Lines tab in the Format Object dialog box, as shown in Figure 16-6. You can then create a border by choosing the line color, style, and weight.



Figure 16-6: Creating a

Adding a caption

A *caption* is a bit of text that identifies a figure, table, chart, or other visual element you include in a document. Captions usually include a reference number (for example, Figure 58 or Table 293). Figure 16-7 shows a document with a captioned drawing imported from SmartDraw.

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To add a caption to a SmartDraw drawing (or any other picture, table, chart, or graphic goodie), follow these steps:

- 1. If you haven't done so already, insert the drawing you want to apply the caption to.
- 2. Select the drawing that you want the caption attached to.
- 3. Click the References tab on The Ribbon, find the Captions group, and then click the Insert Caption button.

The Caption dialog box opens, as shown in Figure 16-8.

	Caption		?
	Caption:		
	Figure 2 Options		
	Label:	Figure	~
	Position:	Below selected item	~
Figure 16-8: The Caption dialog box.	Exclude	label from caption el Delete Label Nymbering)

4. Type the caption.

Word starts the caption for you by providing the reference number. Type the text you want to use to describe the figure, table, chart, or whatever.

5. Change the Label field if it's incorrect.

Word keeps track of caption numbers for figures, tables, and equations separately. When you insert a caption, make sure the Label field is set to the type of caption you want to create.

6. Change the Position field if you want to change the positioning.

The two options are Above or Below the selected item.

7. Click OK.

Word inserts the caption.

Here are a few rapid-fire thoughts designed to inspire your use of captions:

- ✓ If you want to create captions for something other than figures, tables, and equations, click the New Label button in the Caption dialog box and type a label for whatever you want to create captions for; say, for example, a limerick. Click OK, and from then on, Limerick appears as one of the Label types.
- ✓ When you create a caption, Word automatically applies the Caption style to the caption paragraph. You can control the format of all captions in a document by modifying the Caption style. If you aren't sure how to modify a style in Word, now would be a perfect time to pick up a copy of Doug's book, *Microsoft Office Word 2007 All-in-One Desk Reference For Dummies* (Wiley Publishing).
 - ✓ You can create a table of figures, tables, equations, or limericks by clicking the Insert Table of Figures button on the References tab on The Ribbon. For more detailed information about this feature, pick up a copy of Doug's book, *Microsoft Office Word 2007 All-in-One Desk Reference For Dummies* (Wiley Publishing). (Wow! Two plugs in a row!)



- ✓ At various and sundry times, caption numbers wander out of sequence. Fear not! Word can put the caption numbers back into sequence when you print the document. If you're tired of looking at out-of-sequence numbers, press Ctrl+A to select the entire document and then press F9 to recompute the caption numbers.
- ✓ If you want Word to always create a caption whenever you insert a particular type of object into your document, click the AutoCaption button in the Caption dialog box. The AutoCaption dialog box lists all the various types of objects you can insert into a Word document. Scroll down this list a bit and you'll find SmartDraw lurking among the options. Select SmartDraw and any other object types you want to automatically create captions for and then click OK.



Exporting to a PDF

SmartDraw includes the built-in ability to convert a drawing to one of the most popular document formats of all: Adobe PDF (Portable Document Format). Converting to a PDF is a simple procedure. Just follow these steps:

1. Start SmartDraw and open the drawing that you want to convert to a PDF.



The Export dialog box appears, as shown in Figure 16-9.

	Export				? 🗙
	Save in: My Recent Documents Desktop My Documents	Chapter 12	×	- 또 한 태·	
Figure 16-9: Exporting a drawing to a PDF file.	My Computer My Network Places	File name. Save as type: Page	Org 1a Postable Document Format (*.PDF)	• •	Save Cancel Help

3. Navigate to the folder you want to save the file in.

4. Type a new filename if you don't like the one SmartDraw suggests.

Normally, you'll leave the filename unchanged: SmartDraw by default uses the name of the original SmartDraw drawing file, changing the extension to .pdf.

5. Click Save.

The drawing is converted to PDF format.

After you convert a drawing to PDF, you should verify the results by opening a Windows Explorer window (press Windows+E on your keyboard), navigating to the folder where you saved the converted drawing, and double-clicking the PDF file. The file opens in Adobe Reader, as shown in Figure 16-10. (Note that if you don't have Adobe Reader installed on your computer, you can obtain it free from Adobe's Web site at http://get.adobe.com/reader. Adobe Reader is also on the CD that accompanies this book.)



Saving a Drawing in Other Formats

Besides PDF, SmartDraw has the ability to export your drawings to a variety of other graphics formats. SmartDraw can export to the formats listed in Table 16-1.

Table 16-1	SmartDraw's Export Formats
Format	What It Is
EMF	An Enhanced Windows Metafile picture
WMF	Windows Metafile, a format that many programs recognize
BMP	Garden variety Windows bitmap file, used by Windows Paint and many other programs

Format	What It Is
PCX	A variant type of bitmap file, also used by Windows Paint
TIFF	Tagged Image File Format, another bitmap program most often used for high-quality photographs
GIF	Graphics Interchange Format, a format commonly used for small Internet pictures
PNG	Portable Network Graphics file, an image format designed for Internet graphics
JPG	JPEG, a common format for photographs that includes built-in compression
HTM	HTML format. For more information, please see Chapter 18.
EPS	Encapsulated Postscript, a format used by some high-end drawing programs
CGM	Computer Graphics Metafile
DXF	A drawing interchange format used by AutoCAD
DRW	Micrografx Designer or Micrografx Draw, two popular ooh-aah drawing programs
HGL	The format used by Hewlett-Packard plotters
AI	Adobe Illustrator, one of the most popular vector drawing programs
PDF	Portable Document Format, used by Adobe Acrobat

There are two ways to export a drawing to a different format:

- ✓ Use the Save As command, located on the SmartDraw menu. Then use the Save As Type drop-down list to choose the file type.
- Use the Export command, also located on the SmartDraw menu. This command leads to a menu of export choices, as shown in Figure 16-11. Most, but not all, of the export formats available via the Save As dialog box are also available via the Export menu.



Saving for AutoCAD

One of the great benefits of SmartDraw when compared with more technical computer-aided design (CAD) tools such as AutoCAD is that SmartDraw is so much easier to use. This isn't to discount AutoCAD's role in an engineering or drafting environment: AutoCAD or a tool like it is essential for creating advanced graphics that require three-dimensionality and very stringent specifications. Yet AutoCAD is a very difficult program to learn — it can take a skilled computer user weeks to learn the basics of AutoCAD and years to master it.

Therefore, it makes sense that SmartDraw coexists in many organizations alongside AutoCAD or other drawing programs. This naturally raises the question: Can SmartDraw share drawings with AutoCAD?

The answer is Yes, but with some limitations:

SmartDraw currently supports the Drawing Interchange/Exchange Format (.dxf) in AutoCAD 14 or earlier; AutoCAD 2000 and later aren't supported.

SmartDraw currently supports the Drawing (.dwg) format in AutoCAD 13 or earlier; AutoCAD Release 14 and later aren't supported.

What happens if you have a CAD drawing that SmartDraw doesn't support directly? You have two options. First, you can simply try to import the drawing into SmartDraw and see what happens. Depending on the complexity of the drawing, it may open fine, or certain elements of the drawing may appear distorted or be missing altogether. A second option is to use AutoCAD to save the drawing in the version 13 format. Certain elements of the drawing may be lost, but you should then be able to open the drawing in SmartDraw.

Saving for the Mac

How do you share graphics from SmartDraw with a Mac? Simply export to a common file format that's acceptable to a Mac. Any raster- or vector-based image should suffice. To bring your SmartDraw images into a Mac, export your image to any of the following: BMP, GIF, TIFF, PNG, PDF, or JPEG. You can select any of these options using the Export command on the SmartDraw button.

Here's another little tip: You can save your file as an Encapsulated Postscript (EPS) or Adobe Illustrator (AI) file by using the Save As command, also found on the SmartDraw button. Both of these formats are widely supported by Mac software. Select Save As, then select the Save as Type drop-down menu, and choose either the EPS or AI format.

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Chapter 17

Animating Business Graphics in PowerPoint 2007

In This Chapter

- Understanding SmartDraw animation
- Animating your drawings for PowerPoint
- Exporting an animated drawing
- Enhancing animation options in PowerPoint
- ▶ Using a storyboard to create a PowerPoint presentation

A syou find out in Chapter 16, SmartDraw is adept at integrating its drawings with Microsoft Office programs, including Word, Excel, and PowerPoint. However, SmartDraw really goes the extra mile when it comes to PowerPoint. In this chapter, you find out about two additional features that SmartDraw offers for working alongside PowerPoint. The first is its ability to animate a PowerPoint slide that contains an exported SmartDraw graphic by controlling the sequence in which various elements of the drawing appear during the presentation. And the second is the ability to create an entire presentation — not just one slide, but the entire show — from SmartDraw.

Introducing Animated SmartDraw Graphics

SmartDraw can automatically animate any and all of the elements in a drawing when you export it to PowerPoint. Then, when you display the slide that contains the SmartDraw graphic in PowerPoint, the elements that you specified animation for appear one at a time, allowing you to discuss each of the animated elements as they appear on the screen without revealing to your audience what comes next. For example, suppose you're asked to give a presentation at the local meeting of the Halloween Haunters Guild. Your presentation is on using electronic components from your favorite microcontroller company (Doug's is EFX-TEK at www.efx-tek.com) to create a computer-controlled Halloween prop: a creature that pops up by use of compressed air. The prop also plays sounds and flashes lights at the right time to create a scary effect.

Figure 17-1 shows a SmartDraw drawing created to show the electronics used to control the prop. The electronics include several distinct components. including these:

- ✓ A Prop-1 microcontroller, which is the computer that controls the entire show
- \checkmark A relay board (called an RC-4), which turns the lights on and off and triggers the solenoid to activate the pop-up mechanism
- \checkmark A sound board (called an AP-8), which plays the sounds
- ✓ An infrared sensor (called a PIR) that triggers the prop when someone walks by



To facilitate your discussion of these elements, you want them to appear on the screen one at a time, in four stages, as shown in Figure 17-2. Thus, you can talk a bit about just the Prop-1 microcontroller before any of the other components appear. Then, when you click the mouse, the relay board, lights, and pop-up mechanism appear, and you can talk about them. Another mouse click brings up the sound board, and a fourth mouse click completes the diagram by introducing the PIR sensor.



Figure 17-2:

SmartDraw animated in four phases.



Some SmartDraw templates - most notably the various chart templates such as bar charts and pie charts — have predefined animations that automatically animate the chart when you export to PowerPoint.

Animating a Drawing and Exporting It to PowerPoint

You could create an animation like the one shown in Figure 17-2 entirely from scratch using PowerPoint's animation tools, but SmartDraw can handle the animation for you automatically. Then, SmartDraw can export the drawing along with your animations directly to PowerPoint. Here are the steps:



- 1. Create a SmartDraw graphic that has elements you want to animate.
- 2. Decide the sequence in which you want the elements animated.

You can change the sequence later if you want, but it's best to give it a few moments' thought before you set up the animation.

SmartDraw divides its animations into steps, and each step can include as many separate objects as you want. For example, the second step of the animation actually consists of 11 distinct objects: the rounded rectangle that represents the relay board, the symbols that represent the lights and the solenoid, four line segments, and three text labels.

3. Click the PowerPoint tab.

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The commands for creating PowerPoint animations appear, as shown in Figure 17-3.



FD

Preview

4. Select the objects you want to include in the first step of the animation.

To select more than one object, hold down the Ctrl or Shift key while you click the objects you want to select.

5. On the PowerPoint tab, find the Animation group and select 1 from the Step drop-down menu.

The selected items are assigned to the first animation step.

Note: The items in the first step are immediately visible when the slide is displayed.

- 6. Select the objects that you want to include in the second step.
- 7. Select 2 from the Step drop-down menu.
- 8. Repeat Steps 6 and 7 for each additional step of your animation.

Of course, choose the appropriate value from the Step drop-down menu for each animation step.

9. To preview your animation, click the Preview button (shown in the margin) in the Animation group on the PowerPoint tab.

All objects except the ones you selected for the first animation step are hidden.



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10. Click the mouse button anywhere in the drawing to reveal the objects for the next animation step.

For example, click once to reveal the objects for the second step, click again to see the objects for the third step, and so on until the animation is complete.



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Send to

You can also click the Next and Previous buttons in the Animation group on the main toolbar to move the animation forward or backward one step at a time. Or can press the left and right arrow keys if you prefer to control the animation via the keyboard.

11. If the animation isn't right, fix it by selecting the errant objects and assigning them to the proper steps.

For example, if you discover an object that you should've included in the third step, select the object and then choose 3 from the Step drop-down menu.

12. When you're satisfied with the animation, make sure that the Include Animation check box is selected; then click the Send to PowerPoint button (shown in the margin).

The drawing is exported to PowerPoint, as shown in Figure 17-4.



Playing with Animated Drawings in PowerPoint

After you've exported the drawing into PowerPoint, you can use PowerPoint's animation features to beef up the animation. For example, you might want to change the animation style so that instead of simply appearing out of thin air, the animated elements of your drawing fly in from the top, fade out of the background, or appear using any of PowerPoint's myriad animation styles.

Before you start messing with the animation in PowerPoint, you need to realize how SmartDraw exports the animation to PowerPoint. Each step in your SmartDraw animation is exported to PowerPoint as a separate picture that includes all of the objects included in the step. Thus, if you have four animation steps, the PowerPoint slide includes four separate pictures.

The first of these pictures isn't animated in PowerPoint: It simply appears when the slide is displayed. Each subsequent step is then given a custom animation in PowerPoint. As a result, if you have four animation steps in SmartDraw, the resulting PowerPoint slide has just three steps. Step 1 in the PowerPoint slide corresponds to Step 2 in the SmartDrawing, Step 2 in PowerPoint corresponds to Step 3 in SmartDraw, and so on.

Now that you understand how the animation is exported to PowerPoint, here are the steps for changing the animation style used by a SmartDraw animation:

- 1. In PowerPoint, navigate to the slide that contains the exported drawing.
- 2. On The Ribbon, click the Animations tab, find the Animations group, and then click the Custom Animation button.

The Custom Animation task pane appears at the right of the PowerPoint screen, as shown in Figure 17-5.

3. In the Custom Animation task pane, click the animation step you want to change.

For example, to change the step that reveals the PIR sensor, click the third step in Figure 17-5.

4. Click the Change button to reveal a list of animation effects, click Entrance, then choose the effect you want to apply.

The following seven animation effects are listed when you click Entrance:

- Blinds
- Box

Chapter 17: Animating Business Graphics in PowerPoint 2007

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Figure 17-5: Adjusting		Custom Animation	×
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PowerPoint.	Click to add notes	AutoPreview	
	Slide 1 of 1 "Office Theme" 🎸 🔯 633	• 🕤 🗇 🕀 🗵	-

- Checkerboard
- Diamond
- Fade
- Fly-In
- Wedge

5. If you don't like any of the effects listed under the Entrance menu, choose More Effects, select an effect, and then click OK.

Figure 17-6 shows the Change Entrance Effect dialog box, which lists all of the possible entrance effects you can use. In all, there are about 50 effects to choose from.

6. Repeat Steps 3 through 5 for each animation picture whose effect you want to change.

To preview the animation in PowerPoint, press F5 to start the slide show. Then navigate to the slide, and click the mouse or press the spacebar or Enter key to trigger the animations.

	Change Entrance	Effect	28
	Basic		•
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	Dr Box	🗟 Checkerboard	
	💱 Circle	📌 Crawl In	-
	🕸 Diamond	🔅 Dissolve In	- 22
	🔅 Flash Once	📌 Fly In	
	🖏 Peek In	动r Plus	
	🗟 Random Bars	瓷 Random Effects	-
	🗊 Split	Tr Strips	
	🗊 Wedge	3 Wheel	
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Figure 17-6:	at Expand	濊 Fade	
Choosing	Faded Swivel	📌 Faded Zoom	
an entrance	Moderate		~
effect.	Preview Effect	ОК Саг	ncel

Creating an Entire Presentation in SmartDraw

SmartDraw 2009 includes a new feature that effectively lets you create an entire PowerPoint presentation in SmartDraw. At first glance, you might wonder why you would want to do that. After all, SmartDraw is a graphics drawing program; PowerPoint is a presentation program. Doesn't it make sense to use a presentation program to create presentations?

To a point, yes. But the problem with PowerPoint is that it gets you focused on the textual, linear thinking of bullet points followed by bullet points. SmartDraw's alternative lets you create your presentation graphically, by first crafting a *storyboard*, which visually outlines your presentation. Figure 17-7 shows an example of such a storyboard. It resembles a flowchart in which the boxes in the top row represent individual slides, and the smaller boxes beneath each slide represent the bullet points that appear on each slide. The storyboard approach encourages you to work on the big concepts the slides themselves — before you start hammering out the details of what appears on each slide.

Notice that the fifth slide in the storyboard includes a graphic. It's hard to tell from this small image, but the graphic is actually the SmartDraw graphic that was shown in Figure 17-1. SmartDraw's storyboarding features make it easy to insert any SmartDraw drawing into the storyboard. When you do so, the animation that you've applied to the drawing is incorporated into the PowerPoint presentation.



To create a storyboard, follow these steps:

- 1. Click the New button on the Single-Click toolbar.
- 2. In the Category List panel, open the Storyboard template group and click the Blank Storyboard template.

For more info on working with templates, refer to Chapter 2.

A blank storyboard is created, as shown in Figure 17-8. The blank storyboard starts with one slide, which has one bullet point item beneath it.



In most cases, you'll want to start by deleting this bullet point (so you can create your own bullet points later). To do so, just click the bullet point and press Delete.



3. Add slides to your storyboard.

To add a slide, simply click the Add Slide button found in the Build section on the SmartPanel. Each time you click this button, a new slide is added. Figure 17-9 shows how a storyboard appears after you've created several slides.

4. To add text to a slide, just click the slide and start typing.

The text you type appears as the title for the slide when you export the presentation to PowerPoint.



board with

5. To add a bullet point, click the slide you want to add the point to and then click the Add Element button on the SmartPanel.

The element is added beneath the slide. You can then immediately start typing to enter the text you want to appear for that bullet point.

6. To continue adding bullet points to a slide, press the Enter key when you finish the first bullet point.

Pressing the Enter key when entering text for a bullet point automatically inserts a new element for the current slide. Figure 17-10 shows a storyboard after several bullet points have been created for the first slide.





As you begin to flesh out your presentation, you can easily rearrange slides or individual bullet points simply by dragging them to a new location. If you drag a slide, all its bullets move with the slide. Note that you can also drag a bullet point from one slide to another.

7. To insert a finished SmartDraw drawing into a storyboard, first select the slide you want to add the graphic to. Then click the Add Graphic button in the Format section on the SmartPanel.

A dialog box opens that lets you choose the drawing you want to add. Select the drawing and then click Open to insert the drawing into the slide.



To remove a drawing, you must select the slide that contains it and then click Remove Graphic on the SmartPanel. If you try to remove a drawing by selecting it and pressing the Delete key, the entire slide is deleted.

8. (Optional) Apply a PowerPoint theme to your storyboard before you export it to PowerPoint.

To do so, click the Theme button in the PowerPoint section on the SmartPanel and then locate and select the PowerPoint theme you want to use.

9. To export the storyboard to PowerPoint, click the Build button in the PowerPoint section on the SmartPanel.

The SmartPanel automatically starts PowerPoint and creates a new presentation with slides generated from your storyboard. Figure 17-11 shows the result for the storyboard that's shown in Figure 17-7.

With your drawing imported into PowerPoint, you can use all of PowerPoint's powerful editing features to further enhance the presentation.





If your storyboard includes any embedded SmartDraw drawings, be patient: PowerPoint may appear to have taken a nap for a few moments while the drawings are inserted.

Chapter 18

Taking Your Graphics to the Web

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In This Chapter

- Exporting to HTML for the Web
- Adding hyperlinks to your drawings

The ultimate destination of many business graphics created with SmartDraw is none other than the Internet's World Wide Web. If you've created a drawing that will live on the Web, this chapter's for you. You find out how to export a drawing directly to HTML format. And, you discover how to add hyperlinks to your SmartDraw drawings so that users who view your SmartDraw drawings on the Web can click on various parts of the drawing to go to other Web pages.

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Have fun!

Exporting to HTML

As you probably know, HTML (Hypertext Markup Language) is the linguafranca of the Internet. It's the language used to create the billions of pages that appear on the Web.

To include a SmartDraw drawing on a Web page, you must first save the drawing to one of the many graphics formats that Web browsers can natively display. Fortunately, SmartDraw can export to just about all of these formats. GIF, JPG, and PNG are the three most likely candidates; we suggest you use them. For information about how to export to one of these formats, see Chapter 16.

However, to incorporate an exported drawing into an HTML document, you must also craft the HTML code necessary to display the exported drawing. The good news is that SmartDraw can save you that hassle, by creating said HTML for you automatically. Here are the steps:

1. Start SmartDraw and open the file you want to export to the Web.

2. Click the SmartDraw button and then choose Export +>HTML.

The Export to HTML Files dialog box opens, as shown in Figure 18-1.

ĺ	xport to HTML Files 🛛 🚳
	Help Cancel Expurt
Figure 18-1: The Export	Size of web page in pixels: 1000 x 687 Change Image Format: GIF, 256 Colors,
to HTML Files dialog box.	Export to HTML Files Export to Folder: pie In Path: C:\Documents and Settings\Doug\My Documents\SmatDraw

3. Review the Settings section of the dialog box.

This section lists the settings that will be used to export the file — specifically, the target page size and the image format.

4. If you want to change the settings, click Change. Change the settings however you wish and then click OK.

Clicking Change brings up the Export HTML dialog box, as shown in Figure 18-2. This dialog box lets you control several settings related to the size of the intended Web page and the format of the graphic file to be created for the drawing.

- 5. Review the location where the files will be stored. If you want to change the location, click Browse and select a new location.
- 6. Enter the name of the folder you want to create.

The Export to HTML function always creates a new folder where it puts the HTML and graphic files.

7. Click Export.



Figure 18-2: Setting the HTML options.

> The files are exported. A dialog box similar to the one shown in Figure 18-3 is displayed to confirm that the files were exported successfully and to let you know where the files were placed.

	SmartDraw Export Successful
	Where to find your files You have exported two files pic htm and the image file pic_ing; gif stored in folder: C. Voccuments and Settings/Doug/My Documents/SmartDraw FD/Manuscript/Part 4/Chapter 18/usie/.
Figure 18-3: The files have been	Uploading your pages To use these pages upload the htm files and their corresponding "_img" files to your web server.
exported.	ОК

You're done!

If you want to see how the graphic will appear in a Web browser, open Windows Explorer (press Windows+E on your keyboard) and navigate to the folder where the files are stored. Then, double-click the .htm file. The file is displayed in a browser window, as shown in Figure 18-4.



The exported HTML and graphic files still reside on your computer. If you want to incorporate them into a Web site, you have to upload the files to your Web site host. Check with your host provider for information on how to do that.

6 Part IV: Using SmartDraw with Microsoft Office and the Web



Inserting Hyperlinks

In SmartDraw, a *hyperlink* is simply a bit of text or an entire object that you can click when viewing a drawing to summon another drawing, some other type of document, such as a Word document or an Excel spreadsheet, or a page on the World Wide Web.

For example, suppose that you have a drawing that shows the organization chart for your company. You can place hyperlinks on the boxes for each department manager that link to the Web pages for each department. Then, a user viewing the drawing can easily call up the departmental Web pages.

Or suppose that you've created a complicated flowchart that actually consists of several separate drawings linked to each other with off-page connectors. You can turn each off-page connector into a hyperlink that opens the drawing linked to it by the connector. For example, Figure 18-5 shows a portion of a flowchart that includes a hyperlink to a second page that continues the flowchart. The number 2 in the off-page connector is underlined in typical hypertext style.



Here are a few additional thoughts to ponder concerning hyperlinks:



- ✓ Hyperlinks aren't limited to SmartDraw drawings. In SmartDraw, you can create a hyperlink that leads to other types of files, such as PDF files or Word or Excel documents. When the person viewing the drawing clicks one of these hyperlinks, SmartDraw automatically runs the appropriate program to display the linked file.
- A hyperlink can also lead to a page on the World Wide Web. When the user clicks the hyperlink, SmartDraw runs Internet Explorer to connect to the Internet and displays the Web page.
- ✓ A hyperlink can run a program. However, if you plan on publishing the drawing to the Web, this feature probably won't work. For security reasons, most Web browsers are configured to prevent Web pages from running programs on users' computers.

Adding a hyperlink to a drawing is easy. Just follow these steps:

1. Select the text or object that you want to make into a hyperlink.

The most common type of hyperlink is based on a word or two of text contained within an object.

Note: If you select a shape rather than text, the hyperlink appears as a small blue box containing a + sign at the bottom right of the shape. When the user clicks that + sign, the hyperlink is activated.

2. On the main toolbar, click the Insert tab and click Hyperlink.

The Create a Hyperlink dialog box opens, as shown in Figure 18-6.

	<u>N</u> ame of Link	and the second	
	Type in the name of a do will open it when you clicl	current, web site, or a program and SmartDraw k on the blue link created.	<u>B</u> emove Link
	I		Browse
igure 18-6:	Iype of Link	Hint Desite Desite Internet Income	OK
The Create	SmartDraw Drawing Web Page	SmartDraw drawing to link to this text or shape.	
ı Hyperlink	C Document	drawing.	
lialog box.	C Erogram		Help

3. Select the type of hyperlink you want to create.

You have four options:

- *SmartDraw Drawing:* Lets you link one SmartDraw drawing to another.
- *Web Page:* Links to an Internet Web page. You need to know the address of the page you want to link to.
- *Document:* Links to any other type of document, such as a PDF file or a Word or Excel document.
- *Program:* Lets you run a program when the user clicks the link. Note that if you intend to publish the drawing on your Web site, this option probably won't work, as most Web browsers are configured to prohibit Web page links from running programs on the user's computer.

4. Indicate the location of the document you want to link to.

If you chose Web Page in Step 3, enter the address of the Web page in the text box. Otherwise, click Browse and select the file you want to link to.

5. Click OK.

The link is created.

Part V The Part of Tens



"Well, shoot! This eggplant chart is just as confusing as the butternut squash chart and the gourd chart. Can't you just make a pie chart like everyone else?"

In this part . . .

A rticle VI, Section 23, Paragraph 206.4 of the For Dummies Code states that all For Dummies books shall end with a chapter containing "various and sundry collections of tips, guidelines, applications, procedures, anecdotes, and otherwise useful tidbits of knowledge."

Although many of *For Dummies* authors have interpreted the code to be more like guidelines than actual rules, we believe in maintaining the Tradition of the Tens. Therefore, this part presents several chapters that each cover ten things worth knowing about SmartDraw.

Chapter 19

Ten SmartDraw Commandments

And the sorrowful computer user lamented, "Who am I to create yonder business graphic? For I am a user of small talent, and my sketches are like the doodlings of a child." And immediately the heavens opened, and a voice said, "Fear not, for unto you this day is given a program, which you shall call SmartDraw, and it shall be unto you the creator of all business graphics." And from that day forward the user created the most stunning business graphics in all the land. And the people were amazed at his drawings, saying "He charts with clarity and meaning, not as the Excel users do."

- Graphications 1:1

And so it came to pass that these ten SmartDraw commandments were passed down from generation to generation. Obey these commandments, and it shall go well with you, with your bar chart, and with your mind map. So let it be written; so let it be done.

1. Thou Shalt Frequently Saveth Thy Work

Every two or three minutes, press Ctrl+S. It takes only a second to save your file, and you never know when you'll be the victim of a rotating power outage (even if you don't live in California).

11. Thou Shalt Storeth Each Drawing in Its Proper Folder

Whenever you save a file, double-check the folder that you're saving it to. It's all too easy to save a presentation in the wrong folder and then spend hours searching for the file later. You'll wind up blaming the computer for losing your files.

111. Thou Shalt Not Abuseth Thy **Program's Formatting Features**

Yes, SmartDraw lets you set every word in a different font, use a different color for every shape in your drawing, and fill every last pixel of empty space with clip art culled from the thousands of images that you can find within the symbol libraries. If you want your business graphics to look like ransom notes, go ahead. Otherwise, keep things simple.

IV. Thou Shalt Not Stealeth **Copyrighted Materials**

Given a few minutes with Google or any other search engine, you can probably find just the right picture or snippet of clip art for any business graphic need that might arise. In fact, the Capture Web Image command on the Image tab makes it very easy to peruse the Web to find just the right image. But keep in mind that many of those pictures or clip art drawings are copyrighted. Don't use them if you don't have permission.

V. Thou Shalt Abideth by Thy Scheme

SmartDraw hired a crew of out-of-work artists to pick the colors for the design themes and create beautifully crafted templates. Humor them. They like it when you use their stuff. Don't feel chained to the prepackaged designs, but don't stray far from them unless you have a good artistic eye.

VI. Thou Shalt Choose Thy Templates Wisely

When you create a new drawing in SmartDraw, you have a portfolio of nearly 2,000 templates to choose from. Surely one of these templates is similar to the drawing that you're attempting to create. Investing a few minutes up front looking for the right template to base your drawing on can save you hours of tedious work down the road.
VII. Keep Thy Computer Gurus Happy

If you have a friend or co-worker who knows more about computers than you do, keep that person happy. Throw him or her an occasional Twinkie or a bag of Cheetos. Treat computer nerds as if they're human beings. After all, you want them to be your friends.

VIII. Thou Shalt Backeth Up Thy Files Day by Day

Yes, every day. One of these days, you'll come to work only to discover a pile of rubble where your desk used to be. A FEMA agent will set up a wireless network in a tent, but he'll just laugh when he sees what's left of your computer's keyboard. But if you back up every day, you won't lose more than a day's work. (At least, if you are careful to take the backups home with you every day. It doesn't do you much good to back up your files religiously every day, but then leave the backups sitting right next to the computer. The fire that consumes your building will devour not only your computer but also your only backup.)

1X. Thou Shalt Fear No Evil, for Ctrl+Z Is Always with Thee

March ahead with boldness. Not sure what a button does? Click it! Click it twice if it makes you feel powerful! The worst that it can do is mess up your drawing. If that happens, you can press Ctrl+Z to set things back the way they should be.



If you really mess things up, just close the drawing without saving. Then, open the previously saved version. After all, you did obey the first commandment, didn't you?

X. Thou Shalt Not Become Obsessed

Drawing programs have a way of bringing out the monk in us. It takes just a few minutes to copy some shapes from a symbol library and arrange them into roughly the layout your business graphic needs. But it's very tempting to then spend a few hours experimenting with every possible combination of gradient fill, bevel or shine effects, and so on.

The good news is that SmartDraw has all kinds of features to make sure that everything in your drawing is lined up just right, spaced out evenly, and formatted attractively. Let SmartDraw do the hard work of attending to these little details. But don't waste a lot of time tweaking every last snippet of your drawing to make sure everything is absolutely perfect.

One of the great strengths of SmartDraw is that it lets you quickly create business graphics that look really good. You diminish that benefit if you spend an hour putting together a graphic that scores a 9.5 on some imaginary aesthetic score card, then spend another three hours trying to get it to 9.8. The extra time just isn't worth the effort.

Chapter 20

Ten Odd and Unusual SmartDraw Templates

s we've said many times throughout this book, SmartDraw comes with nearly 2,000 templates that you can choose from to serve as the starting point for your own creations.

With so many templates to choose from, it's no surprise that some of them are a little . . . well, odd. Unusual at the least. And so, with no further ado, this chapter presents ten of our favorite oddball templates that are included with SmartDraw. You may never need any of these templates, but it's comforting just to know that they're there.

Nominating a Supreme Court Justice!

Template Name: Flowchart - Nomination & Confirmation Process

Where to Find It: Flowcharts=>Examples

If you're ever elected POTUS (president of the United States), you'll be happy to know that SmartDraw includes a template designed just for you. One of your most important jobs as chief executive will be to fill vacancies in the Supreme Court. When the opportunity arises, you'll definitely want to consult this flowchart, shown in Figure 20-1.



In our opinion, however, this template is lacking several key steps. For example:

- ✓ Nowhere does the flowchart indicate that the nominee has paid all of his or her past income taxes.
- ✓ Nowhere does the flowchart indicate that the nominee is disqualified if he or she has ever spoken on the phone to any governor from the state of Illinois, past or present.

✓ Nowhere does the flowchart make the nominee promise that if he or she ever gets the opportunity to administer the oath of office to a future president, that he or she will actually read the oath from written notes rather than try to recite it from memory.



If you find yourself in a position where you have a need for this template, we therefore suggest you add these items immediately. Or have your people add them for you.

The British Royal Family!

Template Name: Family Tree — British Royal Family

Where to Find It: Family Trees Examples

If ever there was a time when it was vital to keep up with the British Royal Family, now is it. And so, SmartDraw 2009 comes equipped with a template that documents the family tree of the British Royal Family, as shown in Figure 20-2.



Unfortunately, the family tree doesn't include a feature that tracks gossip about the royals, which is unfortunate because gossip is the primary reason — if not the only reason — that anybody actually cares.



We do have one suggestion that might make this template more useful. Using the hyperlink feature described in Chapter 18, you could turn each of the boxes in the family tree into a link that would open a Google page that displays news stories for the selected royal. For example, to add such a link to the Prince William box, you could go to the Google page, do a search on *Prince William gossip*, and then create a hyperlink using the address of the results page.

Then you'd have something useful!

Chapter 13 Bankruptcy!

Template Name: Too many to list here

Where to Find Them: Accounting & Finance Chapter 13 Bankruptcy

Maybe it's a sign of the times, but it seems that one of the biggest single categories in the entire SmartDraw template collection includes the templates for helping you file bankruptcy. Among the templates are flowcharts, forms, checklists, and mind maps that can help you with just about any step of the process. For example, Figure 20-3 shows a mind map on how to classify debts. No wonder you have to hire a team of lawyers to file bankruptcy!



Figure 20-3: Just one of the 32 bankruptcyrelated templates.

> Just for your reference (because we know you want to know), here's a complete list of the bankruptcy templates:

Finding the Right Court Automatic Stay and Common **Collection Actions Avoiding Financial Problems Bankruptcy Code Sections** Bankruptcy Estate Bankruptcy Forms Checklist Budget Chapter 13 Bankruptcy Process **Classifying Debts** Classifying Your Tax Debt Chart **Common Codebtors**

Executory Contracts and Unexpired Leases Exempt Property Filing a Change of Address Government Discrimination & Bankruptcy Hardship Discharge How to File an Amendment Median Family Income Chart Property Protected Against Money Judgments

Consequences of a Dismissed Case Creditor Debts That Are Not Discharged Under Hardship Debt Relief Agencies — Mandatory Disclosures and Notices Debt Relief Agencies Debts That Are Not Discharged Under Hardship Debts That Are Not Discharged Property That Is Not Part of Your Bankruptcy Estate Property Typically Not Exempt Real Property Interest Reasonably Necessary Expenses Sources of Bankruptcy Law When Automatic Stay Does Not Apply When Automatic Stay Protects Against Evictions

Family Holiday Newsletters!

Template Name: Family Holiday Newsletter - 1 and 2

Where to Find It: Flyers >Newsletters

Don't you love those holiday newsletters from your friends who seem to be so much happier and better adjusted than you are? We know you've always wanted to send a holiday newsletter of your own but just haven't had the right software to do it. Now, with SmartDraw, you can. Just use one of the two Family Holiday Newsletter templates, as shown in Figure 20-4.

The Family Holiday Newsletter template recommends that you replace the crude sketch of the happy family in the center of the page with a photo of your own. But be honest — wouldn't it be more fun to leave the original sketch in place?



Coloring a Turtle!

Template Name: Math Activity - Coloring

Where to Find It: Education Subject - Math & Physics

If you ever get bored with the diagrams of atomic elements or the equations for calculating things such as the length of an arc, you can relax by coloring the friendly turtle in this template. See Figure 20-5.

If the turtle was already colored in when you bought this book, please return it to the bookstore and demand an unused copy so you can color the turtle yourself.



Designing a Power Plant

Template Name: Power Plant Cycle

Where to Find It: Engineering Stamples

Whether you're an engineer working on a new power plant design or a member of congress trying to decide how to spend a trillion dollars on a new energy policy, you'll love the power plant template shown in Figure 20-6. What you'll like best about it is that it omits the only really important part in the design of any actual power plant: a source of energy!

The diagram clearly shows how water moves through the boiler, which turns it into steam, which drives the turbine, which turns the generator, which makes electricity. But it conveniently omits the part about where the energy to drive the boiler comes from. It could be coal spewing forth tons of particulate matter, solar panels covering hundreds of acres of wetlands, nuclear energy with a half-life of a billion years, or thousands of huge wind turbines placed right in the path of rare endangered migratory birds who need to be stopped anyway before they get sucked into an airplane engine.

Or maybe it's just a cold-fusion plant, or just an ordinary old-fashioned perpetual motion machine.

Either way, Al Gore probably invented it.



Figure 20-6: The powerless power

Washing Your Hands

Template Name: Training — Hand Washing

Where to Find It: Storyboards Examples

Did you ever come to the dinner table when you were a kid with an unusually inordinate amount of grime on your hands, and your mother promptly grabbed you by the ear, walked you to the bathroom, and, without saying a word, scrubbed you hands almost until your skin fell off?

You mother could have just used the Hand Washing training storyboard template, shown in Figure 20-7. This template provides a nice introduction to the art of hand washing, filled with important but often overlooked details such as holding your hands lower than your elbows and, once your hands have been rinsed, allowing the water to drip into the sink before drying your hands with a towel.



Comparing Video Games

Template Name: Gaming Systems

Where to Find It: Marketing Charts SFeature Comparisons

In case you ever find yourself wondering which of several vintage video game systems (circa 2001) you should purchase, it is comforting to know that a detailed comparison of the most popular video game systems from that era has been assembled for you in the Gaming Systems template, as shown in Figure 20-8.

		Gaming Systems				
	Nintendo GameCube	Sony PlayStation	Sony PSX	Microsoft Allox	ApeXtreme	
CPU	_	1				
Түрн	10M Privated	Emotion Engine	Fination Engine	Secol Pentium III	VIA CR.	
Speed	4859442	3004-5	30041-8	233(4+4	1.40Hz	
Architecture		1		*06	+96	
GPU		8				
Type	ATI Pipper	Graphic Systemative	Graphic Synthesizör	Nu-dia	53 Graphica DeltaChrome	
Speed	4827914	150 ¹⁰ 14	130/4/4	250re-ia	309191u	
Texela/s	05014	1.20	1,20	1.90	2,40	
DirectX 9.0	No	No	540	No	Yes	
GPU Peak Bandwidth/sec	2.408/s	1.268/s	1.2GB/s	6.405/s	9,605/s	
Dedicated Video RAM	4585	4.665	4368	Skarpd e 32806	8.1.145	
AUDIO					1	
Туря	16bR DSP	\$962	5=02	Custom 3D	ULA Virol Six TRA A6 spapier ports (digital & eptical)	
SYSTEM						
Operating System	Proprietary	Peopletary	Beographies.	$\beta_{\rm T} {\rm spec}_{\rm C}(\sigma_{\rm c}) \sigma_{\rm T}$	Windows XP Embedded	
Memory	ADHS	32140	3210	84HD Sherma	256143	
Nask Bandal@95 GB/165	2,462(3	1.26428	LZGB/F	81.4452978	18GR/E	
Hard Drive	ñate	None	120G8	8G3	2063	
Internet Connectivity	55K Modern	Optional	Optional	16/100 LAN	18/100 I AN	
Controller Ports	4	2	3		i + 2 at may	

Figure 20-8:
Video game
systems
compared.

Comparing Coffee Shops

Template Name: Coffee Shop Comparison

Where to Find It: Marketing Charts >Venn Diagrams

You never know when you might need to make a decision about which of three nearby coffee shops you should frequent. For example, one coffee shop might have a great atmosphere, but the others might use better ingredients.

A *Venn Diagram* is perfect for helping you see what the three coffee shops have in common and how they differ. Simply put, a Venn Diagram shows the relationships by categorizing items into a series of overlapping circles. Items that are common between two or more of the categories are drawn in the areas where the circles overlap.

Fortunately, the template shown in Figure 20-9 provides a starting point you can use to create your own Venn Diagrams to compare your own coffee shops.



Template Name: Detention Form

Where to Find It: Education >Performance Forms

Among the many different forms that are available in SmartDraw's predefined templates is the Detention form, shown in Figure 20-10.

If your kid has detention a lot, you can set this up so that the top line already has his name written in.

	DETENTION				
Student's Name:					
Date:					
Teacher					
Detention Date:					
Offense:					
Commentur					
jure 20-10:	Taathar's Speatura	Data			
Detention!	Students's Signature	Date			

Part V: The Part of Tens _____

Chapter 21

Ten Tips for Creating Great Graphics

This chapter presents ten, more or less random, tips and pointers that can help you create great graphics. These tips aren't in any particular order of priority or importance; they're all equally important and should be considered for every drawing you create.

Keep the Design Simple

In general, this guideline advises you to limit the number of variations in your design elements. In particular

- ✓ Avoid using too many different colors, or colors that clash and thus draw attention to themselves. The predefined, professionally chosen color schemes in SmartDraw have been carefully selected to create drawings that are easy on the eyes. If you venture from these colors, do so with care.
- ✓ Just because your computer has a thousand fonts installed on it doesn't mean you should use them all in a single drawing. In fact, we recommend you use only one font throughout your entire drawing, and avoid using variations such as bold or italic unless absolutely necessary.
- Likewise with design effects. SmartDraw lets you apply many different types of shadows, reflections, glows, bevels, and so on. Use them sparingly.
- ✓ Keep the background simple. Usually, the background should just be a simple color or a subtle gradient. If you must use a photograph for the background, consider adding transparency to make the background image subtle. For example, consider the background picture in the chart shown in Figure 21-1. This picture is muted so that it doesn't draw attention away from the chart's data.



Eliminate Extraneous Details

A few months ago, Doug helped plan a mass migration at his office: nearly 30 employees were moved from their current offices or cubicles to different offices and cubicles, as part of a company reorganization.

The plan for this move was crafted by adding a layer over the top of the office floor plan that the building's architects originally drew in AutoCAD. But soon he discovered that the floor plan had a lot of detail on it that wasn't relevant to the move, like chairs and filing cabinets, room numbers (even the hallways have room numbers), and so on. So he replaced the detailed AutoCAD floor plan with a SmartDraw crude schematic. This schematic had the offices and cubicles positioned correctly, relative to each other, but it made no attempt to be architecturally correct. Instead, each office or cubicle was shown as a simple rectangle, with just the employee's name.

The end result did a much better job of conveying who was moving where.

Get the idea? It's tempting to include a lot of unnecessary detail in your business graphics. Sometimes this detail just already exists, so you have to take extra steps to remove it. But more often, the detail is there because you went out of your way to put it in, because you have the mistaken notion that the more details you include, the more successful you'll be at making your point.

In many cases, just the opposite is true.

Look for Compelling Alternatives to Basic Shapes

Sometimes, you can use a picture to convey meaning more effectively than a simple rectangle. For example, Figure 21-2 is a simple bar chart that shows how much beer various countries around the world consume. But the bars usually used in a bar chart have been replaced by glasses of beer. The more beer the country consumes, the bigger the glass.



SmartDraw is especially good at creating picture charts like this. For more information, see Chapter 10.

Be careful, however, not to go overboard with this idea. For it to work, you must have a picture that scales well and appropriately represents the quantities your chart illustrates.

Also, be aware that this guideline applies to many other types of drawings, not just charts. For example, suppose you're working on a flowchart for an order fulfillment process that includes a credit card validation step. You could use an image of a credit card rather than a simple rectangle to represent this step — provided, of course, that the image doesn't obscure the text that appears within the shape.

Be Consistent

Consistency is an important key to creating professional-looking graphics. For starters, you should be consistent in the formatting you apply to the shapes in your drawing. If you want to use effects such as shadows or reflection, use them consistently throughout the drawing. In addition, use consistent wording in the text that appears in your drawings. One sure sign of an amateur graphic is wording that is grammatically inconsistent. Consider these items that might appear in a mind map:

- ✓ Profits will be improved
- ✓ Expanding markets
- Reducing the amount of competition
- ✓ Production increase

Each item uses a different grammatical construction. Now consider the same points made with consistent wording:

- Improved profits
- ✓ Expanded markets
- Reduced competition
- Increased production

Focus on the Title

In most business drawings, the title is either the first item the viewer sees or the item the viewer settles on quickly after scanning the graphic. Therefore, you should pay careful attention to your title's phrasing. It should immediately put the graphic into context and convey your intended message.

For example, consider the following titles for a chart that shows how many animals have been euthanized in animal shelters in the United States each year for a ten-year period:

- ✓ Annual Euthanasia in Animal Shelters (U.S.)
- 🛩 Trends in Animal Euthanasia By Year
- 🛛 🛩 The Euthanasia Crisis

The first two titles are technically precise, but they simply describe the content of the chart rather than convey a message. The third title conveys a message: We're euthanizing too many dogs and cats. (If the title is ambiguous because it doesn't mention *animals* specifically, you could solve that problem by using a muted picture of a dog as the chart background, rather than adding words to the title.)

Choose the Right Type of Graphic for Your Purpose

This might sound obvious, but sometimes it's a challenge to decide exactly what type of graphic best conveys your message and accomplishes your purpose. This is especially true with charts: Should you use a bar chart, a line chart, an area chart, or a stacked bar chart? How should you group the data into series and categories?

There is no one right answer to this question. The answer depends entirely on the message that you're trying to communicate and your reason for communicating it. Sometimes, the only way to know for sure is to try several different variations of your chart to see which one best communicates your intended message. Fortunately, SmartDraw makes it easy to change chart types.

Of course, before you can choose the right graphic for your purpose, you must be clear about what that purpose is. Suppose you've created a diagram that shows the key features of your company's new, improved deluxe model ChronoSimplastic Infindibulator. Never forget that your graphic's real purpose isn't to tell your audience that the new \$65 million version of the Infindibulator has a completely redesigned Flux Capacitor. Rather, your purpose is to get them to buy one.

Never forget the purpose of your drawing.

Consider the Audience

Always consider who the audience for your graphic is before you start. Are they detail-oriented engineers, or big-picture managers? Are they interested in the bottom line, or in the technical details? Are they skeptical of your intent, or are they on your side already?

After you've decided who the audience is, imagine how they'll receive your graphic when they see it for the first time. What's the first thing they'll notice? Will they understand the title? Does it include terminology that isn't familiar to them? Do you make assumptions that will confuse them?

Also, be sure to consider what unanswered questions your graphic might leave. Unanswered questions aren't necessarily a bad thing, but you should try to anticipate them. Will the unanswered questions leave your audience skeptical, or curious?

Give It the Hold-Your-Breath Test

This is one of our all-time personal favorite tips: Try holding your breath while you study your graphic. Its central message should become obvious before you start to turn blue. If it doesn't, you need to either simplify your graphic or work out more.

You might think that this test works only for simple graphics with just a few elements. But we'd argue that the Hold-Your-Breath Test works well even for complicated graphics. For example, the main message of a complicated flowchart isn't that, in Step 37, you need to send two copies of the requisition form to accounts payable; it's that you have a carefully documented procedure that employees should follow for this particular task. By the time you run out of breath and gasp for air, you should be able to identify the exact task that the flowchart documents, whether it's relevant to you, and whether it appears to include an appropriate level of detail.

Give It the Squint Test

Here's another way to validate for yourself your graphic's impact: Stand back from it a bit and squint your eyes so it all goes out of focus. (Or, just take off your glasses.) This can help you focus on the big-picture balance of the graphic. Does your graphic still make sense when you can't read the text or see all the fine details?

Show It to Someone Else

One final test of your carefully created business graphic remains: Show it to someone else. It's always a good idea to get some objective feedback on your work.

We suggest that you start this review by letting your guinea pig look at the graphic for just 30 seconds or so. Then, take it away and ask the question, "What would you say is the most important, or central, message of the graphic?" If your colleague can't come up with an answer, or comes up with an answer that you weren't expecting, you learn that the graphic doesn't effectively convey your basic message.

It's also important, however, to allow a colleague to study your graphic in detail, looking for inconsistencies, errors, typographical errors, or things you've left out. A second set of eyes almost always discovers mistakes you've overlooked.

Chapter 22

Ten Things You Didn't Think to Use SmartDraw For

SmartDraw is a business graphics program, so naturally the first thing you think of to use SmartDraw for is to create business graphics. But SmartDraw excels at creating many other types of graphics that you probably wouldn't think of as business graphics.

As a result, this chapter presents ten or so nonbusiness projects where SmartDraw can definitely be of value. The ideas illustrated in this chapter should spark other ideas for your own novel ways to use SmartDraw.

Organizing Your Closet

Is your closet a mess? SmartDraw includes a template and a symbol library devoted especially to helping you organize your closet, as shown in Figure 22-1. The Closet template (found in the Storage Design section) shows a typical closet space along with male and female figures to give you some perspective on size. And the Walls, Shelves & Cabinets symbol library provides symbols that you can use to design your closet space.

Here are a few tips to help you along with the process of organizing your closet:

- Measure your closet space carefully, and adjust the space shown in the closet template to match your actual closet.
- Start by emptying all of your clothes out of the closet and getting rid of everything you can. Donate to charity anything that's worn out, doesn't fit, or that you haven't worn in years.

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- ✓ Fold items that are out of season and store them in a less accessible location.
- Buy or build some storage modules that are designed to store specific types of items, such as shoes, ties, and hats.
- Research organizing techniques on the Internet. The Web is full of advice for organizing your closets; just search *organize closet* and you'll find dozens of sites packed with great advice.

Diagramming a Crime Scene

Are you addicted to crime shows? Always wanted to be a crime scene investigator? You're in luck! You can get a special legal edition of SmartDraw that has templates and symbol libraries designed especially for diagramming crime scenes.

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Well, we suppose that if you can afford to actually purchase the legal edition, you could be just a wanna-be crime scene investigator, but more likely, you're the real thing. But if you just want to dabble for your own amusement, you can download several example templates from the legal collection via the SmartDraw.com Web site. Just navigate your way to the Web site, click the Search button, and search for *crime*. You'll find several sample templates you can download and examine, including the one shown in Figure 22-2.



Figure 22-2: Diagram-

Planning a Wedding

Many aspects of wedding planning lend themselves well to SmartDraw's capabilities. Here are just a few:

- ✓ You can plan the church layout using one of the Church floor plan templates.
- ✓ You can arrange the seating at the reception using one of the event hall floor plans or the Wedding Seating Chart template, shown in Figure 22-3.
- ✓ You can plan the menu using one of the menu templates found in the Flyers >Menus category.

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- ✓ You can create the wedding program using one of the templates in the Flyerst⇒Brochures category.
- ✓ If you need to create signs for the event, you can use one of the many signage templates located in the Flyerst Signs category.
- ✓ You can use SmartDraw's Live Map tool to create maps for your guests, pinpointing the locations of the church, reception hall, and even nearby hotels.

Remodeling Your Kitchen or Bathroom

Planning a kitchen or bathroom remodeling job? An architect will charge you an arm and a leg to do the design work. With SmartDraw, you can use any of the various kitchen or bathroom floor plan templates as a starting point to create your own remodeling plan. Figure 22-4 shows a SmartDraw kitchen design.

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You'll even find a page with tips for remodeling your kitchen with SmartDraw at the SmartDraw Web site. Just point your browser to www.smartdraw. com/tutorials/kitchendesign.

As you work on a kitchen or bathroom remodeling project, we suggest that you take advantage of SmartDraw's layers feature to keep different elements of your remodeling project on separate layers. For example, use one layer for the walls. Then, create another layer for the existing fixtures such as cabinetry, islands, and so on. Use additional layers for plumbing, electrical, flooring, appliances, and other features you want to add.

In addition to creating a floor plan for your kitchen or bath, you can also use SmartDraw to diagram the cabinetry. For example, Figure 22-5 shows a kitchen cabinet design created with SmartDraw.

Figure 22-5: Designing kitchen cabinets.



Planting a Garden

If you enjoy gardening, and have the space, you can use SmartDraw to help you create a simple layout for your garden. Start by creating a blank landscape layout. (Use the Blank Landscape template in the Landscaping section of the New Document browser.) Then, rough-in your planting area, add a compass point (found in the Pins and Stickers symbol library) to remind yourself where the sun shines, and then start adding your crops.

Figure 22-6 shows a simple garden planted in four $3' \ge 12'$ raised beds, with tomatoes, onions, squash, and asparagus. Everything you need for a salad except the lettuce, the dressing, and the friends to share it with.



Planning Your School's Science Fair

Let's say that you're in charge of your school's science fair, and you'll have the entire cafeteria at your disposal for the students to display their projects. SmartDraw is a great tool for planning how you'll use the cafeteria space to arrange the students' projects.

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Next, create a new drawing from the Banquet Room template, found in the Events and Hospitality section of the New Document browser.

Then, get rid of everything you don't need for your science fair: all the buffet tables, the head table, the plants, and even the guest tables — but leave one guest table in place. Ungroup that table and delete all the place settings and the chairs, then resize the one remaining table according to the tables that are available to you.

Now zoom in close so you can work on that one table. Draw the exhibit space that you'll allow for each student. (In Figure 22-7, we place four student exhibits on each 3' x 8' table.) Align the exhibit on one end of the table and then duplicate it for each end of the table. Now select everything on the table and group it. Then add a text box for each student's name, select the table and the text boxes, and group again. You should now have a single object that represents each table's layout.

Now turn your attention to the room. Resize the room according to the space you'll be working in, and add or remove any doors and other permanent fix-tures you'll need.



Figure 22-7: Planning a science fair layout. After the room is the correct size, duplicate the table as many times as necessary and arrange the tables into rows. Make sure you don't use more than the number of tables that are actually available to you. Figure 22-7 shows a layout that allows for 64 student projects, arranged into four rows of four tables each.

When the tables are all arranged and aligned, select them all and then ungroup them. This separates the name text boxes from the tables so that you can type each student's name in his or her correct location.

Creating a Menu

You might think of a menu as a simple word-processing application best done with Microsoft Word. Or if you want something more fancy, you could create it with Photoshop or a fancy design program like InDesign.

But it turns out that SmartDraw has several prebuilt templates that can help you create professional-looking menus. Figure 22-8 shows an example of one of these templates.

k/	-	1.
	TOUR LOOS	
	Restaurant Name	
9	ips of Designing 9	Menu
Remember that yo custom	Your Menu Sets the Mo ur monu is part of your cuising pe ser not only quality food, but also	od Hormance that offers a quality time
Highlight types of Garden' or "Our Spe	Effective Titles foods by including monu heading callies" rather than using generic Entrees.	s such as "Fresh from terms such as Starters or
Keep too 'won	Menu Description descriptions short, and Use whe d pictures' rather than lengthy des	rever possible oriptions.
Impacting your so	Use Bold Lettering or B becal offers by using bold letterin customer towards your specia sider boxing one out of every 7 to	oxes a or Boxing help direct a. 10 items





You can even find a page of tips for using SmartDraw in your restaurant business at www.smartdraw.com/tutorials/restaurantdesign.

Coaching Your Kid's Team

No matter what sport your kids find themselves playing, SmartDraw comes in handy if you want to help out with the coaching. You'll find several predefined templates for creating team rosters or keeping score at games. And you can easily create your own drawings to diagram plays, schedule the games for the season, plan a tournament bracket, and so on.

Figure 22-9 shows a simple drawing that outlines a football play, created with nothing more than a blank drawing template and the standard shapes and lines that are available from the main toolbar.



Creating a Personalized Calendar

SmartDraw comes with a large collection of calendar templates, which you can easily find in the (you guessed it) Calendar section of the New Document tab in the Document Browser.

Several of these calendar templates include photos that you can easily replace with your own to create a custom calendar with pictures of you, your kids, and your strange relatives. For example, Figure 22-10 shows a calendar for March 2009 created from one of these templates.



For more information about working with photographs in a SmartDraw drawing, refer to Chapter 8.

Figure 22-10: A customized calendar.

Scaring Your Neighbors on Halloween

They say that as an adult your hobbies are often the things you never got to do as a kid. For me (Doug) it was building a haunted house. I create one every year at my home and scare the bejeebers out of hundreds of kids. We manage to scare a few of their parents too.

SmartDraw is a great tool for planning such an endeavor. Figure 22-11 shows how you might use a basic floor plan template to plan a haunted house in your garage. Here, I started with a base layer containing just the walls of the garage. Then I added a second layer containing the walls of the maze that will provide the structure for the haunted house. And finally I created a third layer to show where I will position the props and actors that will provide the scares.

For more information about creating floor plans like this, see Chapter 13.



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Appendix About the CD

System Requirements

Make sure that your computer meets the minimum system requirements shown in the following list. If your computer doesn't match up to most of these requirements, you may have problems using the software and files on the CD. For the latest and greatest information, please refer to the ReadMe file located at the root of the CD-ROM.

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- ✓ A PC running Microsoft Windows XP, Vista, or 2000
- ✓ 3GB of free hard disk space and a minimum of 256MB RAM
- An Internet connection
- ➤ A CD-ROM drive

If you need more information on the basics, check out these books from Wiley Publishing: *PCs For Dummies*, by Dan Gookin; *Windows XP For Dummies* and *Windows Vista For Dummies*, both by Andy Rathbone.

Using the CD

To install the items from the CD to your hard drive, follow these steps:

1. Insert the CD into your computer's CD-ROM drive.

The license agreement appears.

The interface won't launch if you have autorun disabled. In that case, choose Start=>Run. (For Windows Vista, choose Start=>All Programs=> Accessories=>Run.) In the dialog box that appears, type **D**:\Start.exe. (Replace *D* with the proper letter if your CD drive uses a different letter. If you don't know the letter, see how your CD drive is listed under My Computer.) Click OK.

2. Read through the license agreement and then click the Accept button if you want to use the CD.

The CD interface appears. The interface allows you to browse the contents and install the programs with just a click of a button (or two).

What You'll Find on the CD

The following sections are arranged by category and provide a summary of the software and other goodies you'll find on the CD. If you need help with installing the items provided on the CD, refer to the installation instructions in the preceding section.

- ✓ Shareware programs are fully functional, free, trial versions of copyrighted programs. If you like particular programs, register with their authors for a nominal fee and receive licenses, enhanced versions, and technical support.
- ✓ Freeware programs are free, copyrighted games, applications, and utilities. You can copy them to as many computers as you like for free but they offer no technical support.
- ✓ GNU software is governed by its own license, which is included inside the folder of the GNU software. There are no restrictions on distribution of GNU software. See the GNU license at the root of the CD for more details.
- Trial, demo, or evaluation versions of software are usually limited either by time or functionality (such as not letting you save a project after you create it).

Author-created material

Many of the examples of graphics, diagrams, maps, and charts provided in this book are located in the Author directory on the CD, and they work with Windows XP, Vista, and 2000 PCs. These examples correspond to the examples from the book. The structure of the Author directory is

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Author/Chapter1
Author/Chapter2
```

Reference materials

We included the Encyclopedia of Business Graphics poster (in PDF format) that shows the most commonly used business graphics and in what context they are typically used. We includes four best practice

PowerPoint presentations, created with SmartDraw. There is a sample business plan, training, marketing and life sciences presentation that you can use to jump start your creativity.

We also included four SmartDraw PDFs from the popular "Working Smarter" series that show you how to be a better manager, give better presentations, grow your startup company, or market your product or service more effectively using business graphics.

You'll find all these materials in the Reference Materials directory.

SmartDraw 2009

Trial version.

For Windows OS.

SmartDraw 2009 is the latest release of SmartDraw, by SmartDraw.com. This 30-day trial version is a fully functioning version that allows you to follow along in the book if you don't have SmartDraw 2009. For more information about SmartDraw, visit www.smartdraw.com.

Adobe Reader

For Windows OS.

To view and print and PDF documents on the CD, Adobe Reader is required. If you don't have Reader installed, visit www.adobe.com.

PowerPoint Viewer

Trial version.

For Windows OS

Microsoft PowerPoint Viewer 2007 lets you view full-featured presentations created in PowerPoint 97 and later versions. For more information, visit www.microsoft.com.

Troubleshooting

We tried our best to compile programs that work on most computers with the minimum system requirements. Alas, your computer may differ, and some programs may not work properly for some reason.

The two likeliest problems are that you don't have enough memory (RAM) for the programs you want to use, or you have other programs running that affect installation or running of a program. If you get an error message such as Not Enough Memory or Setup Cannot Continue, try one or more of the following suggestions and then try using the software again:

- Turn off any antivirus software running on your computer. Installation programs sometimes mimic virus activity and may make your computer incorrectly believe that it's being infected by a virus.
- ✓ Close all running programs. The more programs you have running, the less memory is available to other programs. Installation programs typically update files and programs; so if you keep other programs running, installation may not work properly.
- ✓ Have your local computer store add more RAM to your computer. This is, admittedly, a drastic and somewhat expensive step. However, adding more memory can really help the speed of your computer and allow more programs to run at the same time.

Customer Care

If you have trouble with the CD-ROM, please call Wiley Product Technical Support at 800-762-2974. Outside the United States, call 317-572-3993. You can also contact Wiley Product Technical Support at http://support.wiley.com. Wiley Publishing will provide technical support only for installation and other general quality control items. For technical support on the applications themselves, consult the program's vendor or author.

To place additional orders or to request information about other Wiley products, please call 877-762-2974.
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