Chapter 1

Unveiling the SMART Board Interactive Whiteboard

In This Chapter

- Discovering what the SMART Board interactive whiteboard can do
- Getting acquainted with your interactive whiteboard system
- Identifying and comparing the different series
- Familiarizing yourself with the the tools and menus

Congratulations! You've decided to get serious about using that great big interactive whiteboard standing proudly in your classroom or meeting room. You've seen others use it. You've heard students talking about how cool one of your colleagues is because he does the wildest things with it. You've heard your boss praise one of your co-workers, saying how well she was able to explain the new workflow using the interactive whiteboard. You want a piece of that action!

In this chapter, I introduce you to all the capabilities of the SMART Board interactive whiteboard. I explain how it works, what you can do with it, and the tools you'll be using to get the job done.

Exploring the Interactive Whiteboard: The Big Picture

You may be thinking, "I've seen one of these interactive whiteboards, but what exactly is it and how does it work?" Well, you're about to find out. The SMART Board interactive whiteboard is a digital whiteboard that gives you all the capabilities of your computer on a whiteboard. Plus, you can use your finger to write on the screen in digital ink. Then you can save, print, or

distribute your notes at the touch of a button; access multimedia files; collaborate on activities by allowing two or more people to write on the screen at the same time; access the Internet; and teleconference.

Some teachers have held lessons with classrooms of students spread across the world. How cool is it to be able to write on the screen in the United States and have students in Canada or England seeing what you've written and participating in your class?

How it works

The interactive whiteboard (see Figure 1-1) connects to your computer and a projector. Your computer desktop is projected on the interactive whiteboard surface. You control the desktop by touching the screen with your finger, a pen, or an eraser, or you can use a keyboard and mouse. The display is touch sensitive, allowing your finger to become the mouse to control writing on the display and control your computer.

Interactive whiteboards versus electronic whiteboards

You may have heard people talking about electronic whiteboards and wondered if those are the same as interactive whiteboards. Here are the differences between an interactive whiteboard and an electronic whiteboard:

- The interactive whiteboard displays your desktop.
- You can write directly on an interactive whiteboard with your finger or various tools and then save your note from the screen to your computer.
- On an interactive whiteboard, you can use all the features and software on your computer, including the ability to access the Internet.

With an electronic whiteboard, all you can do is use your dry-erase markers on the board and save the notes to your computer. You can't use gestures on your desktop or access any software.

Electronic whiteboards are pretty limited. You're better off using your laptop connected to an overhead projector than using an electronic whiteboard. Of course, the best option is an interactive whiteboard, which takes your laptop's functionality to a whole new level.

Figure 1-1: A SMART Board interactive whiteboard system and components.

Originally developed in 1991 by SMART Technologies, interactive whiteboards have been around for over 20 years and continue to incorporate the latest hardware and software.

The term *SMART Board* is actually a brand name owned by SMART Technologies; it isn't a generic term for an interactive whiteboard. (This book focuses on the SMART Board interactive whiteboard, not just any old technology.)

Any software and programs on your computer you use day to day can be used with your interactive whiteboard, including the following:

- Laptop and desktop computers
- Video cameras
- Digital cameras
- Projectors
- DVD players
- Tablets such as the iPad (through web conferencing only)

The great advantage of the interactive whiteboard is that you can engage every type of learner or member of the audience and deliver your message or learning activity to capture their attention. Your participants can interact with information on a different level than they could in the past. Remember the groans or wide eyes when you opened a PowerPoint presentation? Your audience won't experience "death by PowerPoint" when you fire up the interactive whiteboard. Instead, you'll be able to mix content with rich graphics, sound, video, text, and 3-D images. You can even give your audience a kinetic experience by involving them in working with the interactive whiteboard. The next section explains how.

What you can use it for

You can use all kinds of tactics to deliver your message to your audience. Here are some ways you can use your interactive whiteboard:

- **Brainstorming and editing:** Let your students or team members work in a group to brainstorm on a specific topic and record their ideas, and then drag and drop them to other areas of the interactive whiteboard. You can add their notes to pages and save them (see Part II of this book for more information).
- **Real-time collaboration:** You can share your screen with anyone at a computer anywhere in the world and let them take control of your desktop to collaborate on files and projects.
- **Diagrams:** Using diagrams in your presentations and projects livens up the material.
- **Teaching/training aids:** You can use your interactive whiteboard to teach math, vocabulary, and grammar interactively using notes and games. Use a blog or other social network as a classroom exercise; the class can work together on an e-book or blog. Use the record feature to narrate the text.

- **Portfolios:** Encourage your audience to create interactive project portfolios and share them with a department. Students can demonstrate their work at parent-teacher conferences.
- **Games:** An abundance of games (including Scrabble, Jeopardy!, and Who Wants to Be A Millionaire?) are available to break the ice for workshops or educational purposes. Check Appendix A for resources.
- **Streaming:** You can stream video through sites such as Discovery Education (`http://streaming.discoveryeducation.com`) or free videos for teachers from PBS or the BBC. Most are free, but you'll need to create an account. Schools have used multimedia to teach everything from language skills to safe rugby and football tactics.
- **Sharing:** You can save all your presentations and show them to students or team members who weren't present.
- **Group activities:** Websites enable you and your students or team members to create worksheets, posters, and flyers. Try setting up a group activity and create a worksheet to use on the interactive whiteboard. One teacher used the conferencing capability to work with another school across the country to plan a lesson.
- **Access to education aids on the Internet displayed on the large display:** For example, a biology teacher can access 3-D hearts, rotate the images, and add her own notes while explaining the heart's function.

Touring Your Interactive Whiteboard System

The interactive whiteboard system is made up four different components:

- **The hardware:** The hardware consists of the following:
  - The interactive whiteboard
  - A projector (see the nearby sidebar)
  - Your computer
  - A keyboard
  - A USB cable
  - A VGA/RGB cable

  I discuss how to identify your hardware components in the next section and how to connect them in Chapter 2.

- **Interactive devices:** The interactive devices are the following:
  - An on-screen keyboard
  - Loads of on-screen tools
  - The SMART Pen Tray, which includes two or four color-coded slots for pens (depending on which model you have) and one slot for the eraser

The pens and eraser work by interacting with the place setting. Each pen sitting in a slot has an optical sensor to identify it. When you pick up a pen, the sensor sends info to the interactive whiteboard, enabling you to write with the pen by applying pressure with the pen or your finger. (I discuss the functionality of these tools in more detail in Chapters 3 and 4.)

If you misplace one of the pens, you can add any object to interact with the sensor. When you remove the object, use your finger or another marker, and that particular color will be activated. ***Note:*** The 800 series has a feature called Object Recognition, which can identify whether you're using a pen or your finger, so if you do replace the pen with another object, make sure you use that object each time you want to use the "pen."

- **Software:** SMART Notebook collaborative learning software, SMART Meeting Pro software, and SMART Ink™ software (or Ink Aware software) are a few of the many packages included with the interactive whiteboard enabling you to work with some of the coolest applications. I cover these software packages in Part II.
- **Resources:** SMART Technologies offers an abundance of material for you to download for free. SMART resources are a must to explore! You can access the SMART education solutions website at `www.smarttech.com/edredirect`, business solutions at `www.smarttech.com/freestorm`, and the SMART Exchange™ website at `http://exchange.smarttech.com`. I list a number of additional resources in Appendix A.

Projectors: Getting your message out there

You know you have an interactive whiteboard with a projector if there's a space-age-looking arm, called a *boom,* sticking out over the screen (see the figure). Alternatively, your organization may have purchased a projector separately, and the projector sits on a table in front of the interactive whiteboard.

As far as the functionality of the projector, it doesn't matter what kind or model your organization has — the interactive whiteboard still functions the same way.

If you need more information on SMART's interactive whiteboard systems and projectors, go

to www.smarttech.com/kb/160464, which helps you identify your system. This document also links you with user's guides and more information. If you're responsible for looking after your organization's interactive whiteboard, read the user's guide for your project, because it explains how to take care of it.

Comparing the Different SMART Board Interactive Whiteboard Series

Many different interactive whiteboard models and systems are available. In the next few sections, I give you enough information for you to identify which interactive whiteboard you have and understand how it works. Be warned, though: If you brag too much about your new skills, you'll be identified as the team's expert and your colleagues will be coming to you for help!

Do you have an interactive whiteboard or an interactive display?

One of the first things you need to figure out is whether you have an *interactive whiteboard* or an *interactive display* (sometimes also called an *interactive flat panel*). The best way to figure it out is to look at the huge display and ask, "Does it look like a traditional whiteboard, or does it look more like a television set?" If it looks more like a whiteboard, you have an interactive whiteboard. If it looks more like a television set, it's an interactive display.

Another way you can tell is whether the system uses a projector. If it does use a projector, then it's definitively an interactive whiteboard. This book focuses on the interactive whiteboard, but fortunately, if you have an interactive display, you're not out of luck — much of the functionality is identical.

Do you have a 600 series or an 800 series?

If you've determined that what you have is an interactive whiteboard (see the preceding section), the next step is to figure out which series you have. It's not too difficult — there are only two main types: the 600 series (which is still the most widely used) and the newer 800 series.

Although some older models are still around, in this book I focus solely on the 600 and 800 series.

The simplest way to tell the difference between the two series is to look closely at the Pen Tray. If it's a 600 series, it'll have four pen slots (see Figure 1-2); if it's an 800 series, it'll have two pen slots (see Figure 1-3).

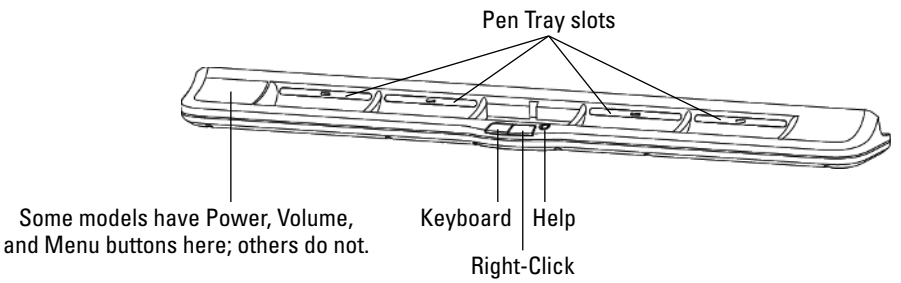


Figure 1-2: The 600 series Pen Tray.

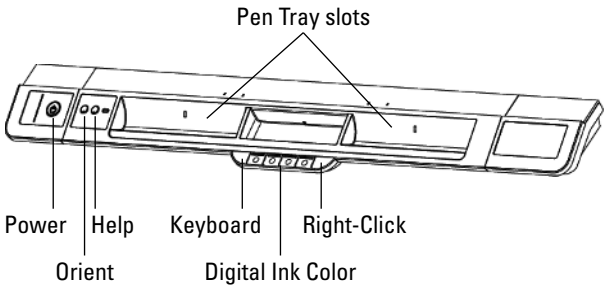


Figure 1-3: The 800 series Pen Tray.

While you're studying your Pen Tray so closely, notice that the Pen Trays on the 600 and 800 series also have different buttons. On the 600 series, there are the following buttons:

- Keyboard
- Right-Click
- Help
- Power (on some models)
- Volume (on some models)
- Menu (on some models)

On the 800 series, there are the following buttons:

- Power
- Orient
- Help
- Keyboard
- Digital Ink Color
- Right-Click

There's one more way you can tell the difference between the 600 series and 800 series: Take a look around the edge of the interactive surface. If you see shiny, reflective material between the whiteboard and its frame, then you have an 800 series. The 600 series has no gap between the whiteboard area and its frame.

Of course, none of this will be necessary if your interactive whiteboard has a sticker telling you what series it is.

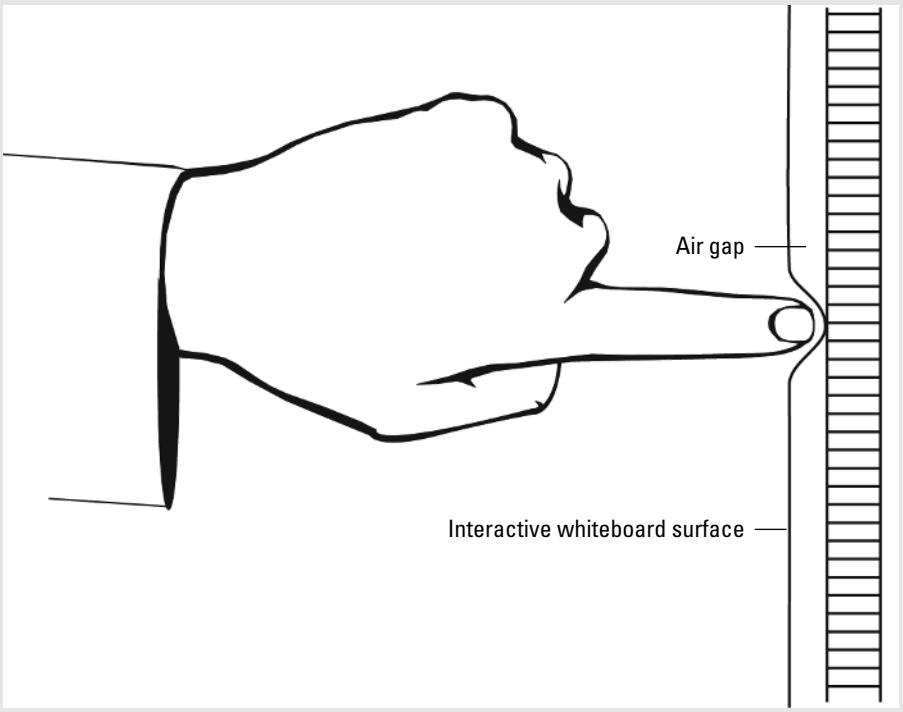
Analog resistive versus DViT® technology

If you're itching to find out more technical detail about how the 600 series and 800 series differ, read on, but I'm warning you: I wouldn't boast this knowledge in a team meeting, unless you want to put everyone to sleep.

The main difference between the 600 series and the 800 series is that they use different methods to translate your touch into computer commands.

The 600 series uses analog resistive technology. Put simply, the interactive whiteboard surface is made up of two thin layers, with a narrow air gap between them. When you touch the surface, you close the gap between the layers and the system tracks the location of your touch by "reading" where the gap is closed (see the figure).

The 800 series uses DViT (short for Digital Vision Touch). This technology uses tiny digital cameras hidden in the frame of the whiteboard area to track the location of your finger or pen on the surface. How cool is that?



Introducing the Interactive Whiteboard Tools

There are a number of different types of navigation tools and menus that enable you to interact with the interactive whiteboard and the software. All these tools have one thing in common: They give you quick access to work with the interactive whiteboard effectively and efficiently. In this section, I give you an overview of the tools, explain their functionality, and show you what they look like.

The Floating Tools toolbar

Part of SMART Board Tools, the Floating Tools toolbar (shown in Figure 1-4) is fully customizable. By default, it appears on the left edge of your screen (when SMART Product Drivers are installed). You can move it to other areas of your screen if you want.

To access the Floating Tools toolbar on a PC, choose Start➪All Programs➪SMART Technologies➪SMART Board Tools. To access the Floating Tools toolbar on a Mac, right-click the SMART Board icon in the Dock and select Open Floating Tools to launch the toolbar. Or click the SMART Board icon and select Show Floating Tools.

For much more on the Floating Tools toolbar, turn to Chapter 3.

SMART Tools

SMART Tools (see Figure 1-5) are additional administration, presentation, and collaboration tools and utilities. Magnifier, Spotlight, and Orientation are just a few of the SMART Tools.

To access the SMART Tools on a PC, choose Start➪All Programs➪SMART Technologies➪SMART Tools. To access them on a Mac, Control-click the SMART Board icon in the Dock. The SMART Tools menu appears.

For more on the SMART Tools, turn to Chapter 4.

Figure 1-4: The Floating Tools toolbar.

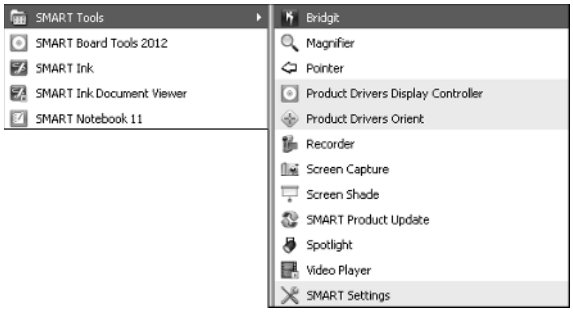


Figure 1-5: The SMART Tools.

SMART Notebook Tools

The main software program you use with most interactive whiteboards is called SMART Notebook. There are various plug-ins, such as Math Tools and 3D Tools, which are referred to as SMART Notebook Tools.

To access the SMART Notebook Tools, tap the Notebook icon on your desktop or in the Floating Tools toolbar.

For more on the SMART Notebook Tools, turn to Chapters 5 and 6.

SMART Ink toolbar

The SMART Ink toolbar (see Figure 1-6) appears on all windows and allows you to mark up any screen in digital ink. (For more on SMART Ink and Ink Aware, see Chapter 5.)

The SMART Ink toolbar appears on all open windows when SMART Ink is turned on.

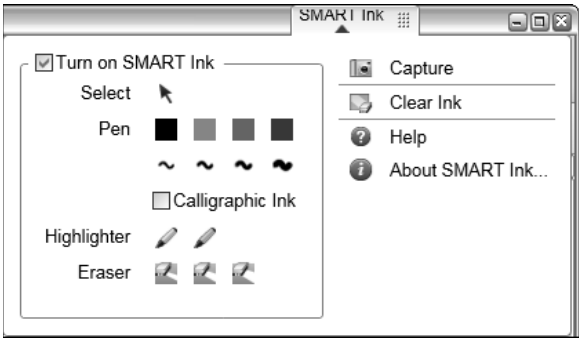


Figure 1-6: The SMART Ink toolbar.

SMART Aware toolbar

The SMART Aware toolbar (see Figure 1-7) appears in Microsoft Office and other software that is Ink Aware. These tools enable you to insert notes, text, or images using digital ink. (For more on SMART Ink and Ink Aware, see Chapter 5.)

The SMART Aware toolbar opens with the application. It can be anchored to the software menu bar or allowed to float.

Figure 1-7: The SMART Aware toolbar.