Chapter 1

The Ins and Outs of PDF Files

In This Chapter

- What is a PDF file?
- The benefits of using PDF files
- Where PDF files come from
- The different flavors of PDF files

I'm so enthusiastic about Adobe PDF files that I think the abbreviation PDF should stand for Pretty Darn Fantastic instead of the more mundane Portable Document Format. In PDF files, you not only see the first inklings of a truly paperless office (or as close as we're likely to get), but also the delivery of a truly universal file format; that is, one truly capable of being opened and used on any of the many computer operating systems currently in use.

In this chapter, you get introduced to what makes PDF files so special and how they can be used to your advantage, especially in office environments that mix and match different computer platforms. As part of this process, you also get acquainted with the different versions of PDF files and how they can be tailored to fit the particular needs of those who use the documents.

The Purpose of PDF Files

PDF, as the name Portable Document Format implies, was developed by Adobe Systems as a means for digital file exchange. The main idea behind the file format is to enable all computer users to be able to open, review, and print the documents saved in it. This means that users who work on computers that don't have the software with which the files were originally created can still see the document as it was originally designed and laid out, including all its fonts and graphics.

The key to this digital file interchange is the nifty little software program known as Acrobat (although Adobe originally named it Carousel when it first appeared in 1993). A free form of this software, known as the *Adobe Reader,* is available from Adobe Systems for all the major personal computing devices and most versions of all the operating systems known to humankind. As of this writing, these forms include:

- Microsoft Windows machines with the following versions: Windows 3.1, Windows 95 (OSR 2.0), Windows 98 SE, Windows Millennium Edition, Windows NT 4.0 (with Service Pack 5), Windows 2000, or Windows XP
- Macintosh computers with version 7.5.3, 8.1–8.6, 9.1–9.2, or OS X of the Macintosh operating system
- Palm handhelds with OS 3.0 or later
- Pocket PC computers with Windows CE or Windows 2002
- IBM AIX workstations with IBM AIX 4.2.1
- HP 9000 Series workstations (model 700 or higher) with HP-UX 9.0.3
- SGI workstations with Silicon Graphics IRIX 5.3
- DEC workstations with DEC OSF/1, version 4
- Sun Solaris SPARCStations with Sun OpenWindows 3.0 or later, Motif 1.2.3 or later, OpenLook 3.0, or CDE 1.0 or later
- Computers running versions of Linux including Red Hat Linux 5.1 or Slackware Linux 2.0

Acrobat 6 and Adobe Reader are both major upgrades to the Acrobat software family. Consequently, backward-compatibility with older operating systems is limited. In order to run Acrobat 6 on Windows you must use one of the following operating systems: Microsoft Windows 98 Second Edition, Windows NT Workstation 4.0 with Service Pack 6, Windows 2000 Professional with Service Pack 2, Windows XP Professional or Home Edition, or Windows XP Tablet PC Edition. Macintosh users must use OS X versions 10.2.2–10.2.6.

All you have to do to get the appropriate version of Adobe Reader for your current operating system is point your Web browser to the following page on the Adobe Systems Web site at

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www.adobe.com/products/acrobat/readstep2.html
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and in the Step 1 of 2 area of the Adobe Reader download page choose your language, your connection speed (dial-up or broadband), and your computer platform. After you choose your computer platform, the Step 2 of 2 area appears. Note that the selections you make in Step 1 determine the version of

Adobe Reader best suited for your computer system. If your current system is compatible with Adobe Reader, you are offered two choices: either the Basic or Full versions if you chose dial-up as your connection speed, or Full if you chose broadband. The Basic version is 8.7MB and can typically take up to 30 minutes or more to download with a 56K modem. The Full version of Adobe Reader has enhanced features that are described in the Step 2 of 2 dialog box and weighs in at a hefty 15.3MB — not a big deal if you have broadband Internet access but worth the consideration if you use a modem to connect to the Web. After choosing your desired version of Adobe Reader, click the Download button. After downloading the Adobe Reader to the desktop of your computer platform, double-click the icon representing the compressed version of the program to unpack and install it on your computer.

After you install the Adobe Reader on your computer, you can then open, review, and print any PDF file that you get, regardless of what application programs were used in generating its text and graphics, and regardless of the computer platform on which these programs ran. (See Chapter 2 for details on how to access and review PDF files with the Adobe Reader.)

Adobe Reader comes in two versions with very different feature sets that you can compare during the process of downloading the program. Adobe also created not two, but three different versions of Acrobat 6: Professional, Standard, and Elements. In order to compare the different features of these products, Adobe provides an Acrobat family features matrix page on their Web site. Go to the following page on Adobe's Web site to view this important information:

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www.adobe.com/products/acrobat/matrix.html
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Benefits of Using PDF Files

The most important benefit derived from the use of PDF files is that anyone whose computer is equipped with Adobe Reader can open, read, and print them. This essentially enables you to concentrate on the software tools that you have at hand and feel are best suited for producing the document without having to worry about whether or not your client or coworker has the same software available to them. As you'll soon see, this is only one of the many important uses to which you can put your PDF files with Acrobat 6. Keep in mind that the availability of many features described in the following sections depend on which version of Adobe Reader or Acrobat 6 you are using. For that reason, it's a good idea to go to the Acrobat family features page described in the previous section to familiarize yourself with all of Adobe's new Acrobat products.

What you designed is what they see

Because you are assured that your PDF files will essentially appear on-screen and print as you originally designed them, no matter the computer on which they're opened or the printing device to which they're output, you don't have to hold back on your design, avoiding the use of certain more decorative fonts and/or complex layouts. Figures 1-1 and 1-2 illustrate this situation. In Figure 1-1, you see a PDF file as it appears when opened with Adobe Reader on a computer running Windows. Figure 1-2 shows the same PDF file as it appears when opened on a Macintosh computer. As you can see, they are both comparable in terms of the appearance of their fonts and their layout.

PDF files in the review cycle

While PDF debuted as a universal file format for viewing and printing documents on various types of computers and printers, thanks to advances to the Acrobat software (and here I'm referring to the full-fledged Acrobat program that you must pay for rather than the freebie Adobe Reader available for download), you can now make PDF files an integral part of your design review process. After converting a document to PDF, you can disseminate copies of it to each of the people from whom you need feedback or approval before you put it into use. Each of these people can then add their feedback by adding comments or actually marking up the PDF document in Acrobat 6.

You can then collect their feedback and make the necessary changes either to the PDF version of the file in Acrobat 6 or to the original document (prior to PDF conversion) in the program used in its creation. If managers, coworkers, or clients are required to sign off on the document (either in its original or revised form), they can indicate their approval by stamping the document with their approval or by digitally signing off on it, as shown in Figure 1-3. (See Chapter 9 for details on how to use PDF files in a review cycle and Chapter 11 for details on how to use digital signatures.)

Providing forms, both paper and electronic

With the widespread reliance on the World Wide Web for getting and submitting crucial information, PDF files have taken on another important use, that of providing forms to fill in both online and after printing. Acrobat 6 makes form creation about as easy as it can be.

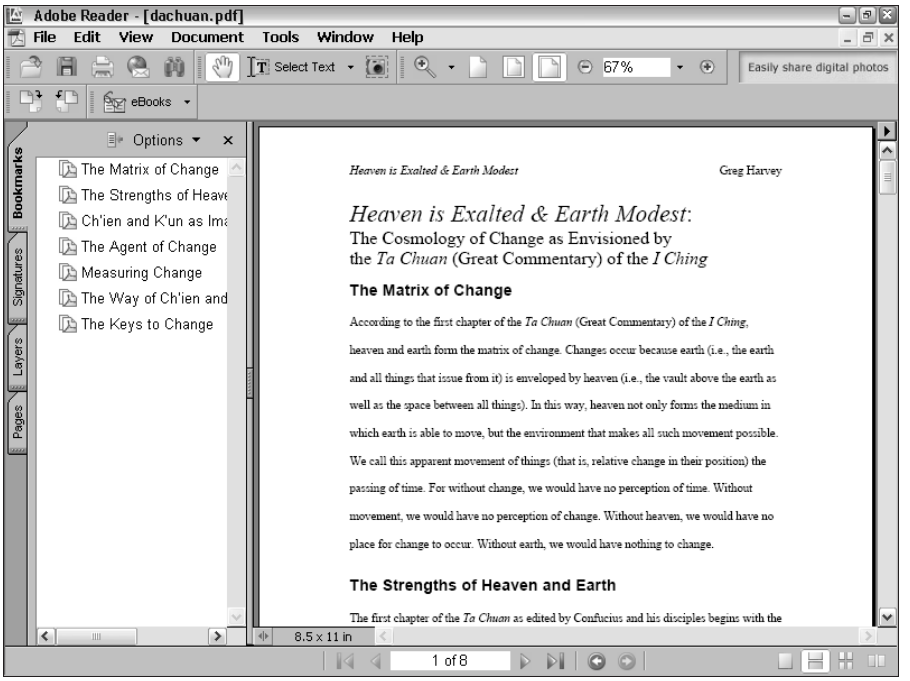

Figure 1-1: A PDF document as it appears in the Adobe Reader 6 on a computer running Windows.

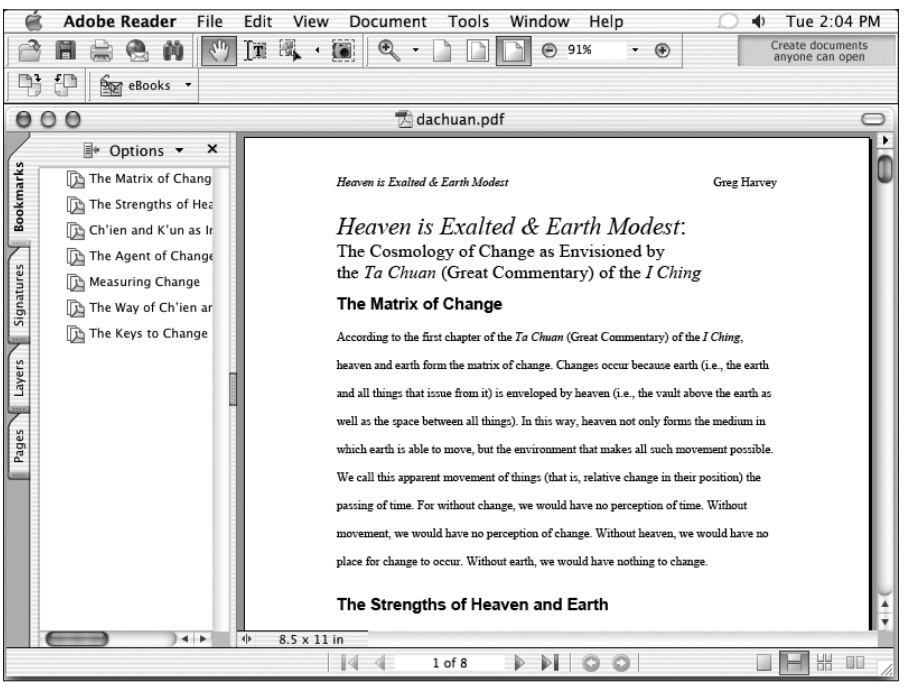

Figure 1-2: The same PDF document as it appears in the Adobe Reader 6 on a Mac computer.

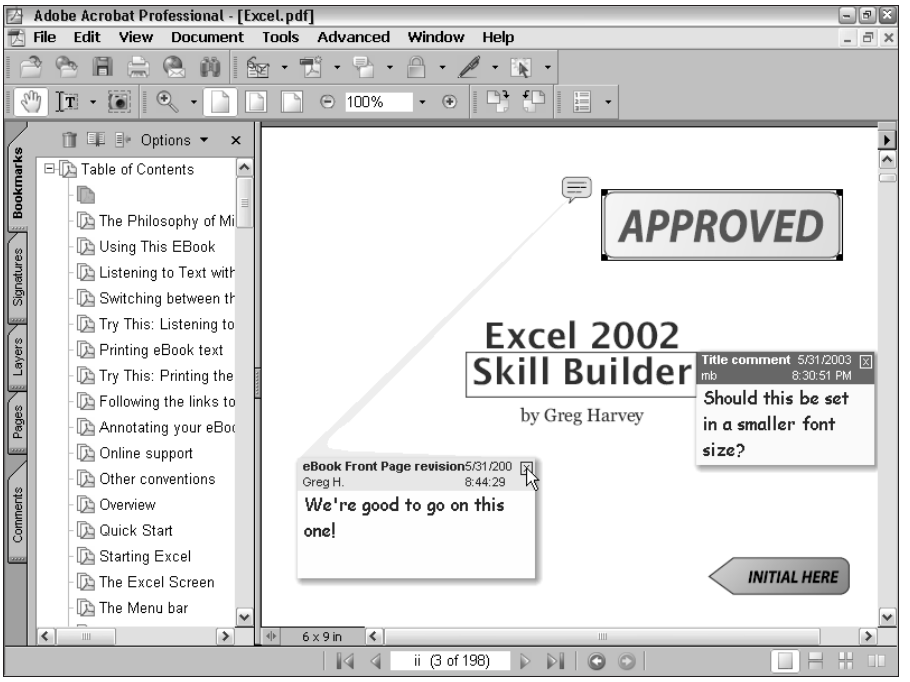

Figure 1-3: With Acrobat 6, you can add comments and mark up text that needs revising, as well as give your stamp of approval.

If you need to make certain paper forms available on your company's intranet or your public Web site so that users can download, print, and then fill them in by hand, you can use Acrobat 6 to scan the paper forms and immediately convert their digital images into PDF files (see Figure 1-4). If you need to be able to search and edit the text in the electronic versions of these forms, you can use the Paper Capture feature — Acrobat's version of OCR (Optical Character Recognition) software — to convert the text image into searchable and editable fonts. (See Chapter 6 for details on scanning paper forms and converting them into PDF files with Acrobat 6.)

If you need to get feedback or process informational or order forms directly from your company's intranet or its public Web site, you can use Acrobat 6 to design the electronic forms. Acrobat 6 makes it possible to add all types of interactive fields, including text boxes, combo boxes (also known as drop-down list boxes), check boxes, radio buttons, and command buttons (that users can select to do things such as submit their information or clear the form). With the addition of a simple CGI (Common Gateway Interface) script (courtesy of your friendly IT personnel or Internet service provider), you can store the data submitted by way of your PDF forms in text files that your favorite database or spreadsheet program can read and store. (See Chapter 14 for details on creating interactive PDF forms for use online.)

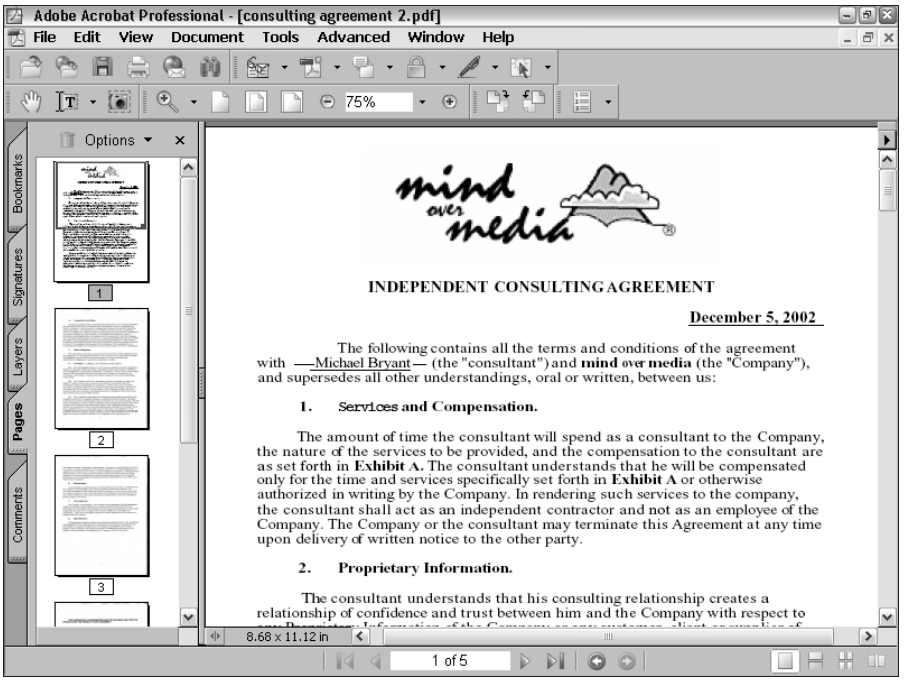

Figure 1-4: Acrobat 6 makes it easy to scan and convert paper forms to PDFs, which can then be distributed for download from your Web site.

You don't have to use the World Wide Web or a company intranet to be able to fill in electronic PDF forms that you create with Acrobat 6. Users who have Acrobat 4 or later installed on their computers can open and fill in these electronic forms using this version or later of Acrobat.

Document archiving

Let's face it: Paper archives are not just bulky and heavy, but they also degrade quickly and are a veritable nightmare to search. For this reason alone, out of all the possible uses for Adobe's Portable Document Format, archiving your documents as PDF files may prove to be the most important to you. Imagine all your paper contracts, correspondence, company reports, and the like stored as collections on CD-ROMs, from which you can retrieve individual files through searches for keywords or for vital statistics such as author name, client name, or job number.

You can use the Paper Capture feature in Acrobat 6 on the Windows or Macintosh platform to scan and convert such paper documents into searchable PDF files. After you do that, Acrobat makes it easy for you to organize

these files into collections (known officially as catalogs), which you can index for truly speedy retrieval using the Acrobat 6 search feature. (See Chapter 6 for details on converting paper documents to PDF and Chapter 13 for details on cataloging and indexing your files prior to storing them on various media.)

The Paper Capture feature in Acrobat 6 for Windows restricts you to scanning and converting paper documents of no more than 50 pages in length. If you know that you must scan and convert documents longer than 50 pages on the Windows platform, you need to purchase the standalone module, Acrobat Capture 3 for Windows NT, 2000, or XP or Acrobat Capture 2.0 for Windows 95/98.

PDF in the prepress workflow

One of the most obvious uses for PDF files is in the prepress workflow, during which documents that require professional printing are checked for potential printing errors and readied for conversion from electronic images to the film or plates used in the final printing of the document using high-end imagesetters (a process known in the industry as *preflight*). Acrobat 6 (Professional version only) contains a number of prepress-related printing options, along with an overprinting preview and an on-screen color correction feature.

These specialized print options and error-checking features in Acrobat 6 are designed to help professional graphic artists and service bureau personnel in finding and eliminating potentially costly printing problems. Most users not directly involved in this end of the business will have no reason to fool with these printing options or use these specialized preview features. (If, for some unknown reason, you are interested in knowing more about these prepress features, refer to Chapter 8.)

Always check with your service bureau personnel to find out what, if any, prepress options they want you to use prior to sending them your PDF files for preflight. Some houses definitely prefer that you not use *any* of these prepress options, so it's always good to check it out ahead of time.

Quick and easy Web site retrieval

If you are involved with your company's Web design or you are a Web freak who travels frequently and is therefore bereft of a way to stay connected to the Net, you can use the Acrobat 6 Web Capture feature to copy and convert to PDF specific Web pages or even entire Web sites that are of interest to you (see Figure 1-5). After you've converted a set of Web pages or an entire Web site into PDF files, you can then browse them from your hard drive with Acrobat or Adobe Reader without being connected to the Internet.

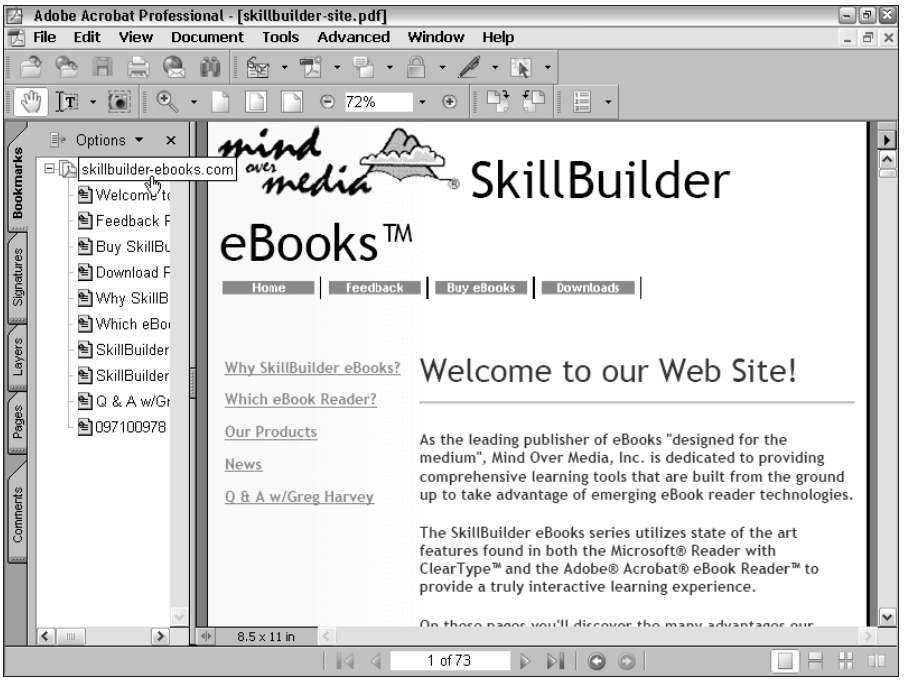

Figure 1-5: Acrobat 6 makes it a snap to capture Web pages as PDF files.

As both a road warrior and Web enthusiast, you can use this feature to keep up on the latest online information right from the comfort of your portable computer at those times when you're traveling or just waiting to travel.

If you work as a Web designer, the Web Capture feature provides a perfect means for distributing your Web pages for approval to your client or coworkers. If they have Adobe Reader or Acrobat 6 on their computers, they can even annotate the pages with their suggestions in the form of notes and markups or even give you that final nod of approval using the stamp feature. (See Chapter 7 for details on retrieving and converting Web pages to PDF.)

PDF files as slide shows and multimedia presentations

Another application for PDF files is to use them to create and distribute slide shows and multimedia presentations (see Figure 1-6). Acrobat 6 enables you to add interactivity to your slides in the form of hyperlinks, buttons, and slide transitions. You can also use the program to add sound and/or digital movie files to the slides that your users can play back for a true multimedia experience. Note that Acrobat 6 now supports slide shows and greeting eCards created in Adobe Photoshop Elements 2.0 and Photoshop Album 1.0.

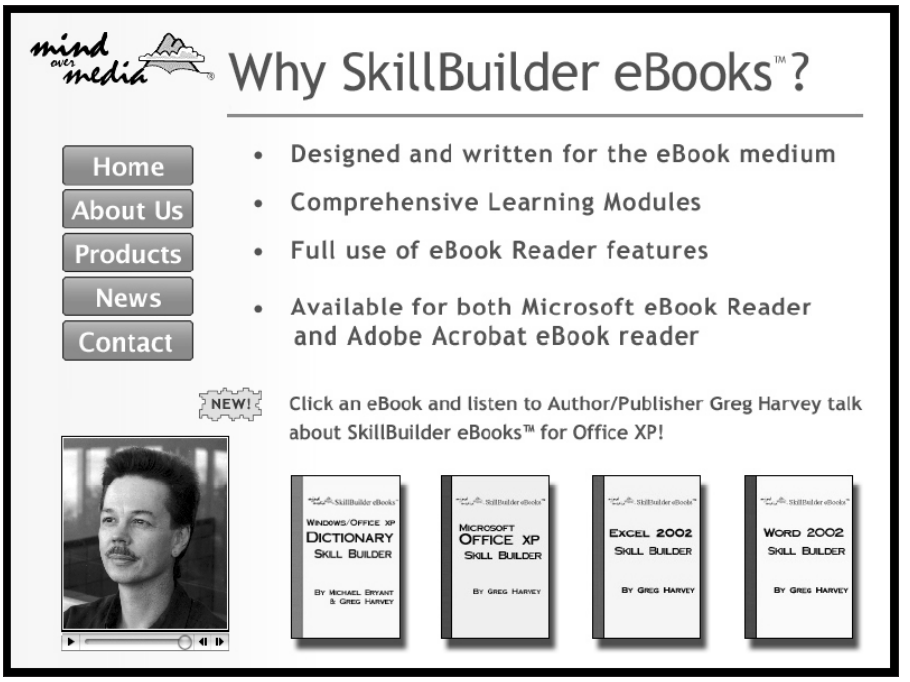

Figure 1-6: You can play slide shows saved as PDF files in full-screen mode.

To enhance the online slide show or multimedia presentation, Acrobat 6 supports a full-screen mode that the user can invoke with none of the screen clutter normally associated with using Acrobat and Adobe Reader (full-screen mode hides the menus, toolbars, scroll bars, status bar, and in Windows, even the omnipresent Task bar). When a user views your slide show or presentation in full-screen mode, you can set it up so that Acrobat automatically advances through each page after a set time interval, using a slide transition of your choice.

If you normally use Microsoft PowerPoint to create your slide shows, you can convert them into PDF files at the touch of a button. You can then use Acrobat 6 to add any extra interactivity and then distribute them for playback on any computer on which the free Adobe Reader 6 is installed.

The Different Types of PDF Files

In addition to the many different uses for the Adobe Portable Document Format described in this chapter, PDF files also give you a great deal of flexibility when you want to reuse their content for other purposes. For example,

you can use various PDF formats to distribute a graphically rich report with lots of tables and pictures for printing or viewing on a computer monitor, and then "repurpose" that same content for viewing in a Web page or on a handheld device where such graphics are prohibitive. This fabulous chameleon act is possible because Adobe PDF files support three basic document structure types: *unstructured, structured,* and *tagged*. PDF documents that are created from these types of documents create the following PDF files:

- **Unstructured PDF:** These PDFs have no logical structure tree to define or further describe the author's content. All document information is treated as a single unit with just the author's text and paragraph structure recognized. Basic text formatting, tables, and lists are not recognized.
- **Structured PDF:** These PDFs recognize the author's text and paragraph structure but also have a logical structure tree that defines basic text formatting, such as font attributes. Tables and lists are not recognized.
- **Tagged PDF:** These PDFs have a logical structure tree that includes all the attributes of structured PDFs and also includes definitions such as document styles and stories (this allows tables and lists to be recognized) and dependencies among various document elements that allow the text to be reflowed. (For more information on reflowing text, see Chapter 15.)

To understand document structure types, you need to look under the hood of your favorite word processor or page layout program. As you create your document, these programs can provide a logical structure tree and tags that define how your document appears when printed or viewed on-screen. I say *can provide* because programs such as Notepad in Windows and Macintosh, which are simple text editing programs with no formatting ability, don't provide for a logical structure tree and so create unstructured documents. You can get an idea of how a document structure tree works using the Document Map feature in Microsoft Word. Open a document and choose View➪Document Map. The program displays the document's structure tree as hierarchies of headings, paragraphs, and so on. Word then adds tags to this tree that define paragraph styles, font types, font attributes, and allow you to use this structure tree to navigate the document by clicking different structure elements.

The support of document structure types enables you to create unstructured, structured, and tagged PDF files with Acrobat 6. The subsequent result is that the more structured your original document, the more you can reliably reuse your content for other purposes using Adobe PDF. To find out more about PDF file types, see "Understanding how structure types affect flexibility" in the online Acrobat help module. To access the online help guide, choose Help➪Complete Acrobat 6.0 Help or choose Complete Acrobat 6.0 Help on the How To Window.