



PDF From A to Z

In the last few years, portable document technology has created one of those quiet evolutions with significant consequences. You may not realize that when you download and print an interesting article from the Internet or view a soft proof we have sent of your printing project, that portable document technology is at work. You may encounter it several times each day without understanding its current use and potential.

A Brief History of Portable Document Technology

In 1990, No Hands Software introduced the first portable technology, called Common Ground. Adobe Systems followed in 1993 with Carousel (later renamed Acrobat), Farallon Computing released Replica, and other companies also contributed to the technology.

Adobe's Portable Document Format (PDF) was a third version of its popular PostScript file format, intended to be independent of the hardware, soft-

ware, operating system and fonts used for file creation. Adobe conceived of PDF as a device for viewing files and printing to desktop devices, and so omitted the PostScript code needed for production printing. However, by 1996, at the request of the printing and publishing industry, Acrobat 3.0 had been upgraded to support color separations and other requirements of high-end printing.

New uses for PDF continue to develop, and now include file transfer, proofing, PostScript utility, on-screen presentations, document archiving, information gathering via forms, electronic document management and web applications.

What is PDF?

In technical terms, PDF is a proprietary, universal electronic file format modeled after the PostScript language. PDF is platform-, application- and device-independent - a PDF document can be viewed, navigated and printed using any computer, whether

or not the computer has the fonts and software used to create the file originally. Used correctly, PDF is a powerful, flexible and very useful document technology.

A PDF file contains all the components required for output: a view file; embedded type; bitmaps and compressed vector images of graphic objects. It may also include links for variable forms data; sound, QuickTime and video information; and hypertext linking.

PDF files are also compressed during creation, making them smaller than PostScript or native application files. And the size difference can be dramatic - as much as 90%, depending on the mix of vector and bitmap images in the file and how the file will be used.

How Does A PDF File Differ From PostScript?

A PDF file offers several advantages

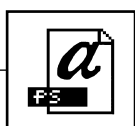
Adobe Acrobat At Work



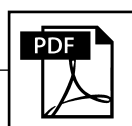
Create your document in your favorite application.



Set up your system for proper PDF generation.



Create a PostScript file from your document.



Use Acrobat Distiller to convert your PostScript file to a PDF file.

PDF for Print

- Laser Printers
- Digital Color Copiers
- Inkjet Printers
- Large Format Printers

PDF for Press

- Digital Printing
- Imagesetter Output
- Computer to Plate

PDF for Online Viewing

- Download from the Internet
- Electronic Document Distribution
- Onscreen Viewing

PDF for Publishing on CD or Server

- Technical Documentation
- CD-ROM Presentation
- Business Presentation

over a PostScript file:

- **Complete** – PDF documents contain all the data required for display and output (images, fonts and page layout) embedded directly in the file rather than linked.
- **Compact** – PDF compression and lack of programming commands makes them smaller than PostScript files. Therefore, PDF files can often be output faster to an imagesetter or platesetter.
- **Portable** – PDF files are page-, platform-, application- and device-independent. PDF documents can be easily separated into individual pages and imposed, and a different software program can generate each page of a PDF file.
- **Reliable** – Page elements and text flow cannot be changed accidentally because the PDF object-oriented data storage method does not allow for repagination if an element on a page is modified or deleted. PDF documents also can specifically be protected against modification.
- **Searchable** – PDF files can be indexed, catalogued, searched and hyperlinked and used in both print and non-print forms.
- **Editable** – PDF files can be edited with Acrobat Exchange or with plug-ins.
- **Versatile** – A single PDF file can be used for digital proofing, for imagesetting to press plates, to print to a monochrome or color laser printer, to view on the Internet and to archive and retrieve as part of a document management system.

PDF Challenges for High-End Printing

PDF files for high-end printing appli-

cations such as we use here at Summit Press are created from PostScript files; therefore, the quality and completeness of the file depends on how well the PostScript file was constructed. The common errors that compromise a PDF file are the same as those affecting a file submitted in a native application - fonts and graphics not embedded, corrupted components, use of non-standard graphic file formats, RGB color instead of CMYK. This means a careful preflight of both the native application and the PostScript file is needed prior to creating the PDF.

Ways to Create a PDF File

The safest way to create a PDF file for high-end printing applications is to use Distiller, a part of the Acrobat suite of programs. Since Distiller only works on PostScript files, you must first create a PostScript file with embedded fonts. You can then distill the file after selecting the appropriate job options for font embedding, file compression and other characteristics. Remember that Distiller uses different job option settings depending on whether the PDF is being optimized for high-end press output or output to a copier/printer.

There are also short cuts to creating a PDF file. One is to use the Save or Export function in a native application such as Adobe Illustrator 5.x and above; PageMaker 6.5; or Quark XPress 4.x. You can also use PDFWriter, a print driver supplied with Acrobat. However, be aware that these short cuts may not produce a PDF file that can be used for all high-end printing applications. For example, one limitation of PDFWriter is that it does not convert Encapsulated PostScript (.eps) files, Photoshop clipping paths or imported Illustrator files. Therefore, PDFWriter has limited use in creating PDF files.

We Can Help You with PDF

From our perspective, there are many advantages to using a Adobe PDF workflow for high-end printing depending on what is being printed. It's a good idea to call us (817-334-0521) before sending us your PDF files. We can answer any questions you might have about sending us a PDF, as well as point out a few important things you will need to check in your document.

Helpful Vocabulary Words:

Acrobat Distiller: a software program used to convert any PostScript file into PDF. Part of the Acrobat suite.

Acrobat Reader: a software program used to view a PDF file. Part of the Acrobat suite, distributed at no cost by Adobe.

Bitmap Images: Graphic images formed by pixels. Each pixel contains data that describes whether the pixel is black, white or a level of color. Bitmap images are edited by manipulating groups of pixels.

PDF Publishing: to publish in print or non-print form. Converting documents to PDF allows searching on key words for retrieval from archives.

Pixels: picture elements – an addressable area on an array.

Vector Graphics: also called object-oriented graphics. Created with mathematically defined curves and line segments called vectors. Vector graphics are edited by moving and resizing the entire graphic or the lines and segments that compose the graphic.