

PDF: Portable Document Format

What is PDF?

PDF (Portable Document Format) is a type of file format developed by Adobe (Adobe; PDFZone). Any document that would normally be printed can now be turned into a PDF file which is a visually exact digital copy of such a printed document (Electronic).

Making PDF Files

Adobe PDFWriter

PDFWriter works like a printer driver except instead of printing a document, it creates a PDF file of that document (Electronic; PDFZone). PDFWriter lets the user take advantage of the print command in applications such as word processors, spreadsheets, presentation applications, etc. to create PDF files that look just like the original. It is convenient for making direct conversions from simple documents, but it does not work for all types of documents (MIT). PDFWriter comes standard as a printer driver on Macintosh, but must be purchased for use on PC. It is considered cheap in price (PDFZone).

Adobe Acrobat Distiller

Distiller is the program needed to handle the conversion documents that contain high-end print publishing features (PDFZone). Specifically, Distiller converts PostScript files to PDF and allows the user to control different options in the PDF file being created (Electronic; Grotta; MIT; PDFZone).

Adobe Acrobat Capture

Capture is a Microsoft Windows application that converts image files to PDF (PDFZone).

Reading PDF Files

Adobe Acrobat Reader

PDF files can be viewed by anyone with Adobe Acrobat Reader, a free download that can be loaded as a browser plug-in or as a separate application. Acrobat Reader allows users to view not only the PDF document, but also all of the extra features if they are present (Electronic; MIT).

Adobe Exchange

Acrobat Exchange is like Acrobat Reader, but with Exchange the user can add links, bookmarks, annotations, etc. to existing PDF files. Exchange users can also rearrange pages within one PDF file or among different PDF files. While the Reader is free, Exchange costs money (Electronic; MIT).

The Significance of PDF

The significant contribution that the PDF format has brought to computing is usability.

Cross Platform

PDF files are cross platform. Since these files are cross platform, PDF files can be exchanged easily among users of all different platforms (Electronic). This means that, for example, a PDF file that is created on PC can be read, navigated, and printed on a Macintosh after it has been downloaded from a web site running Unix (PDFZone; TaxForm).

File Size

PDF files are relatively small in size. For example, PDF files can be approximately 1/5 the size of an HTML page with the same content (PDFZone). Smaller file size increases usability among people with different computer processing power and memory and among people with different Internet connection speeds.

Appearance

One of the most appealing features of PDF files to users is the ability to create digital documents that look exactly the way the user intends. These files will show the precise colors used in the design on any monitor and can be magnified up to 800% without losing any clarity in images or text (MIT; PDFZone)

A difficult part of creating digital images as designed is the use of specific fonts. Users can assure that the fonts they choose are included in their PDF files in several ways. First, the user can choose to use the standard fonts that come with the Acrobat software: Adobe Times, Helvetica, Courier, Symbol and Zapf Dingbats (Electronic; MIT). These fonts will appear on any computer reading the PDF file. Should the user not want to use these fonts, she can select the ones that appeal to her and allow Acrobat to substitute in similar fonts (MIT). When faced with fonts that are not Acrobat standards, the software creates a description of the characters used including character width, weight, and style. Then, when the file is viewed, a proper font substitution can be made according to this information. In most cases, the substitute font is clean and readable (Electronic).

Users can also choose to embed their font of choice into the PDF file itself so that the Reader recreates it on other systems. This will increase the file size (PDFZone). A final choice for dealing with fonts in Acrobat is to subset the font, this is similar to

embedding except instead of including the entire font, a subset includes only the characters used within the document. Acrobat does have a threshold for subsetting so that if a document uses more than 35% of the font's characters, it will automatically embed the font. The advantage of using a subset is a smaller file size (PDFZone).

Navigation

The PDF file format contains many elements that increase the usefulness of the documents. For example, these documents can include internal and external links, thumbnails of each page, bookmarks, and annotations (Electronic; PDFZone). The text of PDF files is also searchable (MIT).

Printing

PDF files print as sharp, color-precise documents that print on almost all printers (PDFZone).

Accessibility of PDF Files

To access information on the Internet, many visually impaired users count on screen reading software that reads text aloud. Because this software only processes text, PDF formats are inaccessible for the visually impaired. As a result, designers who are aiming to make their work accessible to all choose to use HTML or plain text for their documents (MIT).

To make up for the lack of accessibility of PDF files, Adobe has created a tool, Adobe Access, which converts PDF files to HTML or plain text to make the document accessible for the visually impaired. This software forgoes the appearance of the original document in favor of a single column of text arranged in a logical reading order (MIT). Adobe Access can be used via the web where users type in the URL of the

PDF file and have their document returned in accessible form to their web browser. Users can also use Access via email where they attach the PDF file to a message and have their document returned in accessible form in the body of an email message (Access).

References

Access.Adobe.Com: Online Conversion Tools for Adobe PDF Documents. (n.d.).

Retrieved July 24, 2001, from <http://access.adobe.com/onlinetools.html>

Adobe Acrobat 5. (n.d.). Retrieved July 24, 2001, from

<http://www.adobe.com/products/acrobat/main.html>

Electronic Publishing Research Group: Noddy's Guide to Acrobat and PDF. (n.d.).

Retrieved July 24, 2001, from

<http://www.ep.cs.nott.ac.uk/pdfcorner/noddypdf.html>

Grotta, S. W. (2001). Acrobat's Working Better with Others. *PC Magazine*. Retrieved

August 2, 2001, from

<http://www.zdnet.com/products/stories/reviews/0,4161,2716003,00.html>

Laird, K. (1999). Advantages of PDF. Retrieved July 24, 2001, from

http://www.ecn.purdue.edu/~laird/thoughts/ACS/pdf_advan.html

Laird, K. (1999). HTML advantages. Retrieved July 24, 2001, from

http://www.ecn.purdue.edu/~laird/thoughts/ACS/html_advan.html

MIT Academic Computing: PDF FAQ. (n.d.). Retrieved July 24, 2001, from

<http://web.mit.edu/acs/faq/pdf.html>

PDFZone.Com: About Acrobat & PDF – Basics. (n.d.). Retrieved July 24, 2001, from

<http://www.pdfzone.com/resources/aboutacrobat.html>

Simone, L. (1999). Agile Acrobat. *PC Magazine*. Retrieved August 2, 2001, from

<http://www.altavista.com/cgi-bin/query?pg=q&stpe=stext&Translate=on&sc=on&q=%2bpdfwriter+%2bwindows+%2b98&stq=10>

TaxForm 990 for Charities: What is Adobe Acrobat and How Can I Use It? (n.d.).

Retrieved July 24, 2001, from <http://www.taxform990.org/#PDF>

What is Adobe PDF? (n.d.). Retrieved July 24, 2001, from

<http://www.adobe.com/products/acrobat/adobepdf.html>

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