

## **About PDF Files**

Our PDF workflow is one of the most advanced in the print industry. At Pacific Press, users create a print-ready PDF which can stream directly to our pressroom. PDF is an excellent format because it is portable, immutable and compact. Our application-specific workflows assure that files will distill with minimal problems.

## **Background on PDF**

PDF (Portable Document Format), introduced in 1991 by Adobe Systems, Inc. is a file format designed for universal document communication across a wide variety of computer platforms, operating systems and networks.

Since its development over fifteen years ago, PDF has evolved from a popular format for interoffice and low-resolution communications to include many applications, and has become so popular and widespread that different kinds of PDFs have been developed. Documents that will produce the expected results in the prepress and print environment are contained in a subset of PDF called PDF/X.

## **PDF/X**

Press-ready PDF's (also called PDF/X-1a), have some special characteristics, most notably due to font, resolution and color format requirements of printing presses. According to a recent Graphic Arts Technology Foundation survey, among the most common errors in client files destined for print were: fonts not embedded, incorrect color space (RGB instead of CMYK), images missing, and overprint/trap issues. The PDF/X standard seeks to minimize these types of errors by rejecting input elements that either fall short of the minimal requirements or contain extraneous objects that would interfere with smooth transmission of PDF files which are ultimately bound for the press.

For a file to conform to the PDF/X standard, all fonts and images must be embedded, all elements must be encoded as CMYK or spot, and the file must be identified as trapped or not trapped.

The PDF/X subset also prohibits certain elements (for example, movies, javascript actions, embedded multimedia), restricts certain elements (such as notes or annotations, which can only appear outside the live area in a print-destined file) and requires certain elements related to the printing process. For example, PDF/X-1a sets requirements for image resolution, maximum image density, hairline rules, etc.

## **Our workflows use PDF/X-1a**

At Pacific Press, the user, following our recommended workflows, creates a PDF/X-1a file. We support this format because it allows users of the site to create and approve the final file that will go to press.

PDF/X-1a files are relatively small, yet of the highest quality due to their JPEG compression, and can be uploaded and exchanged via the internet with a standard broadband connection. Problems with graphics, fonts, bleeds, etc. are corrected in the course of creating the PDF/X-compliant file, which is then editable only in specialized software, such as Enfocus Pitstop.

## **How to make PDF/X-1a files**

While our workflows recommend Adobe Acrobat Professional's Distiller for its trouble-free functionality and excellent user interface, there are other programs that can create files to the PDF/X standard.

The Adobe Creative Suite 2 applications (Illustrator CS 2, InDesign CS 2 and Photoshop CS 2) and later have very good internal PDF/X creation capabilities, and we can expect further developments in this regard in the very near future. Please see your application-specific workflow for more details.

Other PDF/X creation software includes Jaws PDF Creator, Apago PDF Checkup, and PStill for Mac and Windows.

As PDF technology continues to improve, we expect to integrate those improvements into even more efficient and error-free workflows.