Simplified Requirements for Creating PDF Files for IEEE Xplore®

Introduction

This document summarizes how to create IEEE Xplore® compatible PDF files. To create these files requires attention to (1) how the manuscript is created, (2) how the files are converted to PDF (Acrobat is used as an example), and (3) how the fonts are embedded and subsetted.

Tips for Creating the Manuscript

Graphics

- The manuscript's graphics should have resolutions of 600dpi for monochrome, 300 dpi for grayscale, and 300 dpi for color.
- Graphics should be inserted into the manuscript file rather than using cutting and pasting.
- Do not link to a graphic. Instead, insert the graphic into the manuscript.

Fonts

- The manuscript must use fonts that allow embedding and subsetting (including the base fonts). Failure to embed and subset fonts is the biggest obstacle to PDF compliance with IEEE Xplore®.
  - All Type 1 fonts are embeddable.
  - Only some TrueType fonts are embeddable. See the next page for more information.
- Do not embed fonts in a graphic file.

Tips for Creating PDF Files for IEEE Xplore

- An electronic file containing the complete Distiller job options (settings) files for Acrobat 6, Acrobat 5, and Acrobat 4 can be downloaded from www.ieee.org/confpubcenter. The download includes instructions for installing the job options files.
- **DO NOT** use password protection in the PDF file.
- All fonts, including the standard (base) fonts, must be embedded and subsetted in the PDF. *If using one of the job options files from* www.ieee.org/confpubcenter *a PDF file is not created unless all the fonts are embedded and subsetted.*
- In "Settings ->Job Options ->Compression" of Distiller set the downsampling resolution to 600 dpi for monochrome, 300 dpi for grayscale, and 300 dpi for color[1].

NOTE: *PDF files created with the setting file from* www.ieee.org/confpubcenter *and Acrobat 6 Distiller are acceptable. Once the PDF file is created they must* ***not*** *be saved with either Acrobat 6 or Acrobat 6 Reader.*

[1] The complete compression settings are as follows. For grayscale and color images: (1) Resampling: Bicubic downsampling at 300 dpi, (2) Compression: JPEG, and (3) Quality: Medium. For monochrome images: (1) Resampling: Bicubic downsampling at 600dpi, and (2) Compression: CCITT Group 4.

How to Check the Fonts

Adobe Acrobat users can check for font embedding and subsetting by following the steps below. Failure to embed and subset fonts is the biggest obstacle to PDF compliance with IEEE Xplore®.

Using the Acrobat or the Acrobat Reader[2]

Follow the steps below with either Acrobat or the Acrobat Reader to check if all the fonts are successfully embedded and subsetted.

1. (*Skip this step if using the Acrobat Reader)* Under the View menu, be sure that "Use local fonts" is not checked.
2. On the Print panel, check "Print to file". This will cause Acrobat to try to assign fonts to all the fonts in the document.
3. Print the file.
4. Go to Document Properties > Fonts
5. Click on the "List all fonts" button
6. *(Note: Each column in the screen shots below is numbered. The numbers aid in understanding the following description.)* In the Font Info panel, column one gives the original font name. Column two gives the font type (i.e., Type 1 or TrueType). Column three is not relevant to this check. In column four ("Used Font"), it should say "Embedded Subset". Column five ("Type") must match column two.

Sample Screen: Fonts are OK

*Sample Screen: Fonts are **NOT** OK*

[2] The free Acrobat Reader is available at www.adobe.com/products/acrobat/readstep2.html.