10 steps to optimize PDF files for on-screen viewing on handheld computers.

When creating PDF files for viewing on handheld computers, one must keep in mind the limitations of these systems. Following are 10 steps you can take to ensure a better PDF viewing experience.

1. Consider creating "screen" versions of files for viewing on handheld computers. Typically this means that all color and grayscale bitmaps are downsampled to 72 dpi and are compressed using either zip or jpeg compression. In addition fonts are embedded as a subset and fonts and line art are compressed. Using these settings a smaller and more compact file is created resulting in faster rendering time.

2. If possible design/re-design your document to fit the proportions of the screen of your handheld device. Experiment with page and font sizes to determine what will work best for your device. Pages can be cropped down to appropriate size using the Acrobat Crop Tool or by defining a custom page size in your Distiller or PDFWriter Printer properties. Designing to fit the screen will help keep scrolling and magnifying to a minimum and will provide a better user experience.

3. The most consistent results for font rendering are obtained by using embedded Type 1 fonts and Distiller to create your PDF. If you are using TrueType fonts and get unexpected results creating your PDF with Distiller, try using PDFWriter to create your PDFs. If you still get unexpected results switch to Postscript Type 1 fonts.

4. Use vector graphics instead of bitmap graphics. Vector graphics, like those created in illustration programs such as Adobe Illustrator, Macromedia Freehand, CorelDraw, or AutoCAD, are defined by mathematical formulas. Vector graphics are smaller and quicker to render. Bitmap graphics, created in paint programs like Photoshop or PhotoPaint, are defined pixel by pixel which makes them larger and results in longer rendering time.

5. If bitmap graphics are required, use the resampling settings in Distiller's job options to reduce the resolution. The lower the resolution of the bitmap images the quicker they will load. Remember, if you resample a bitmap down to 72dpi it will look good at 100% but if the viewer must zoom in the quality will diminish. Increasing resolution will improve the quality of the bitmap when viewed at higher magnification but will also increase file size. This is a case where one must balance the benefits of quality vs. file size.

6. Design your page layout so that objects do not overlap. When a PDF is processed, a large number of overlapping objects, especially multiple objects over the same point cause a huge increase in rendering time. An example of a worst case scenario is a colored background (filled shape) over which a high-res image is placed with text overlaying the image. In general the simpler the page layout the quicker the rendering time.

7. Convert color to RGB for on screen viewing. In Acrobat 4 Distiller a) if you have Acrobat 3 compatibility chosen, under the Settings > Job Options > Color Tab, in the conversion section select "convert all colors to CalRGB" b) if you have Acrobat 4 compatibility chosen, under the Settings > Job Options > Color Tab, in the conversion section select "convert all colors to sRGB". In Acrobat 3 Distiller under the Settings > Job Options > Advanced Tab, select "convert CMYK images to RGB".

8. Reduce the file size by using the compression settings in Distiller's job options. The compression settings are used in addition to the resampling settings to reduce file size. While resampling settings apply only to bitmap objects, compression settings can be applied to all elements in the file. Select the compression settings for any bitmap graphics you have in your file and also select compress text and line art. NOTE: if you optimize your file all text and line art is automatically compressed.

9. Consider breaking up large files into smaller sections. The more pages a file has the longer it will take to load the file. By breaking up long documents you can reduce rendering time.

10. Optimize the files. This is a good habit to get into because it "cleans up" the file and makes it orderly. You can optimize files during distilling, by using the "save as" command and selecting "optimize", or when batch processing files.

Final Note:
Try using the "ScreenOptimized" job option profile in Distiller 4.0. This profile is already set up to resample bitmap images to 72 dpi, compress the file, subset embedded fonts and convert everything to the RGB color space.

You can create your own custom distiller profile by opening one of the default profiles (select the profile then choose Settings > Job Options), changing the settings as you require, and saving the settings with a new name. Your custom job options will then be available in the Distiller Job Options drop down list.