PostScript Quick Tips: Converting PostScript to EPS

Most desktop publishing software can include EPS (Encapsulated PostScript) images. Unfortunately, some PostScript graphics are not in EPS format. For example, some books contain PostScript examples that are not in EPS format, and PostScript files received from other computer platforms or from the Internet may not be in EPS format.

This Quick Tip describes a method for converting a PostScript page description to EPS format. Note that some PostScript files (such as fonts) are not actually page descriptions, and can not be converted to EPS format.

In order to perform this conversion, you will need Adobe Illustrator version 5.5, which includes Adobe Acrobat Distiller version 1.0. Note that Distiller version 2.0 is not compatible with Illustrator version 5.5. (Illustrator 5.5 can not open PDF files created by Distiller 2.0.)

Begin by Distilling the PostScript file, to convert it to PDF format. If the file contains photographs or paint style graphics, be sure to turn off Downsampling and Compression for Images using the Distiller Job Options dialog box before Distilling the file, to avoid image quality degradation.

Next, open the PDF file in Illustrator 5.5. If the original PostScript file contained multiple pages, Illustrator will present a dialog allowing you

```
10 0 {abs exch abs sub abs 1 exch sub} setscreen
/f 256 string def
0 1 255 {f exch dup 0.96 mul cvi put} for
18 36 translate 576 360 scale
256 1 8 [256 0 0 -1 0 1] {f} image
showpage
```

to select a single page from the document. In most cases, you can simply choose "Save As..." from the "File" menu, change the Format from PDF to EPS, and choose the Preview and Compatibility Mode. Choose a one bit Preview Mode for Black and White files, or to save space for Gray Scale or Color files. Choose eight bit Preview Mode for Gray Scale or Color files if saving space is not an issue.

For most PostScript files, this is all that's necessary. Some PostScript files, however, may not be converted correctly:

- The Distiller ignores custom halftone screens and fill patterns. The resulting PDF files print using the standard halftone screen. The PostScript code in Figure 1 demonstrates this problem. It prints a gradient using a coarse crosshatched screen, much like a window screen. When Distilled to a PDF file, however, it displays as a gray scale and prints using the standard halftone screen.

- Some files which Distill successfully can not be correctly imported into Illustrator 5.5. Type 3 fonts and fonts using non-standard encodings are not always imported correctly. For example, the PostScript program on Pages 282-283 of the *PostScript Language Reference Manual, Second Edition*, is correctly processed by Distiller, but produces a blank page when imported into Illustrator 5.5.

If the resulting EPS file does not produce the same result when printed as the original PostScript file, you can replace the generated PostScript in the EPS file with the original PostScript. You must either use an editor (such as Adobe's LaserTalk) that can open EPS format files, or you must change the file type from "EPSF" to "TEXT", edit the file, then change the file type back to "EPSF". There are a number of utilities (such as Apple's ResEdit) that allow you to change the file type.

EPS files contain special PostScript comments at the beginning. Programs that import EPS files read these comments. Two comments are mandatory for EPS files: the "%!PS-Adobe-3.0 EPSF-3.0" comment on the first line of the file, and the "%%BoundingBox" comment. (The BoundingBox comment includes four numbers, which will vary from file to file.) When you edit the EPS file, leave these two comments, and remove the remainder of the file. (If you wish, you may also retain the %%Creator, %%For, %%Title, %%CreationDate, and %%DocumentFonts comments.) Then, place the original PostScript after these comments, and save the file. The resulting EPS file will include the screen preview generated by Illustrator, but when printed, will produce results identical to the original PostScript.