A Quick Guide to Using Compressed Graphics in $\LaTeX\,2_\varepsilon$

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October 27, 1997

Introduction

On occasion, you may need to create a $\LaTeX\,2_\varepsilon$ document which includes a number of large graphics images (for example, my thesis includes almost 25 megs of graphics). A little known feature of the $\LaTeX\,2_\varepsilon$ graphicx package is that you can actually work with gzip-compressed postscript images (`.eps.gz`) instead of uncompressed files (`.eps`). The steps for doing this are described in both the graphicx documentation and the *LaTeX Graphics Companion*, but for simplicity I decided to write a short tutorial on doing this.

Including Compressed `.eps` Images

To include compressed images you have to follow a couple of steps:

1. The images must be in Postscript (`.ps`) or Encapsulated Postscript (`.eps`) format. For images not in this format, you should use the `netpbm` tools or `xv` to convert the image to `.eps`.

2. You must use either the graphics or graphicx package. These methods don't with with the psfig or `epsfig` packages (which are obsolete anyway, so you shouldn't be using them).

3. You need to compress the graphics file using `gzip`:

   ```
   gzip -9 file.eps
   ```

4. For LaTeX to be able to process the compressed graphics file, you need to create a "Bounding Box" file (`.bb`), with the sizing information of the image. The "Bounding Box" is described in the `.eps` file with a line like

   ```
   %%BoundingBox: 71 492 439 721
   ```

   The simplest way to create the bounding box file is to use `zgrep`:

   ```
   zgrep BoundingBox file.eps.gz > file.eps.bb
   ```

5. Finally, you need to replace the `\includegraphics` commands in your `.tex` file to look for just the base filename instead of the filename plus extension. For example, if the original line was

   ```
   \includegraphics[scale=0.5]{file.eps}
   ```

   the new line should read

   ```
   \includegraphics[scale=0.5]{file}
   ```

If you do all these steps properly, LaTeX, `xdvi`, and `dvips` should all work properly with the compressed files, saving a large amount of disk space.

Questions/Problems?

Contact `kaszeta@me.umn.edu`.