Including Landscape Figures and Tables in a LaTeX Document

To insert landscape figures or tables, you'll need two packages, `graphicx` and `rotating`, which are included with most TeX/LaTeX distributions. The `graphicx` package defines a new command called `\includegraphics` that enables you to include (and scale, if necessary) an imported graphic. Note that LaTeX plus `dvips` requires imported graphics to be in encapulated PostScript (EPS) format, while pdfLaTeX accepts PDF, JPEG, or PNG formats but *not* EPS. (The conversion programs `epstopdf` and `jpeg2ps` are very useful.) The `rotating` package provides two new environments, `sidewaysfigure` and `sidewaystable`, which you use in place of the standard LaTeX environments `figure` and `table`. The sideways environments always put the landscape table or figure on a page by itself.

Documentation

Full documentation for the `rotating` package is in the book the *The LaTeX Companion* by Mittlebach & Goossens. Documentation for the `graphicx` package is in the file `grfguide.pdf`. Under TeXLive 2005 this file is in the folder: `C:\TeXLive2005\texmf-dist\doc\latex\graphics\`. On other systems, it will be in a similar location. The material on including graphics is in Section 4.4.

Another useful document is *Using Imported Graphics in LaTeX2e*, a large PDF document by Keith Reckdahl of Stanford University. It includes all you would ever want to know with many examples. You can find it at `http://www.ctan.org/tex-archive/info/epslatex.pdf`.

Viewing the Result

If you use pdfLaTeX, the resulting PDF file should display everything properly. If you are running LaTeX to process your file, most of the time the previewer will be able to display the included PostScript graphics (by calling the `ghostscript` program). However, landscape tables will not display correctly, and if the graphic is in landscape orientation, it may not display properly. To see a correct display, use `dvips` to put the output in a PostScript file and then use GSView to view it.

To view the output from this document, which contains landscape figures and tables, look at either of the files `exrotating.ps` or `exrotating.pdf`. If you compare the output with the LaTeX input (`exrotating.tex`), you'll see how the latex code generated the resulting output. To try it yourself, copy `exrotating.tex` to your own directory, along with the graphics files `cat.eps`, `smokeblk.eps` and `cat.pdf`, `smokeblk.pdf`. Then either run LaTeX followed by `dvips` or run pdfLaTeX.

Examples

This file illustrates the use of both the `graphicx` and `rotating` packages and can be processed either with pdfLaTeX or with LaTeX plus `dvips`. Note that, in the examples that follow, the filename extension is purposely omitted in the `\includegraphics` commands. LaTeX will look for files with the extension `.eps` and pdfLaTeX will look for files with extensions `.pdf`, `.jpg` or `.png`.
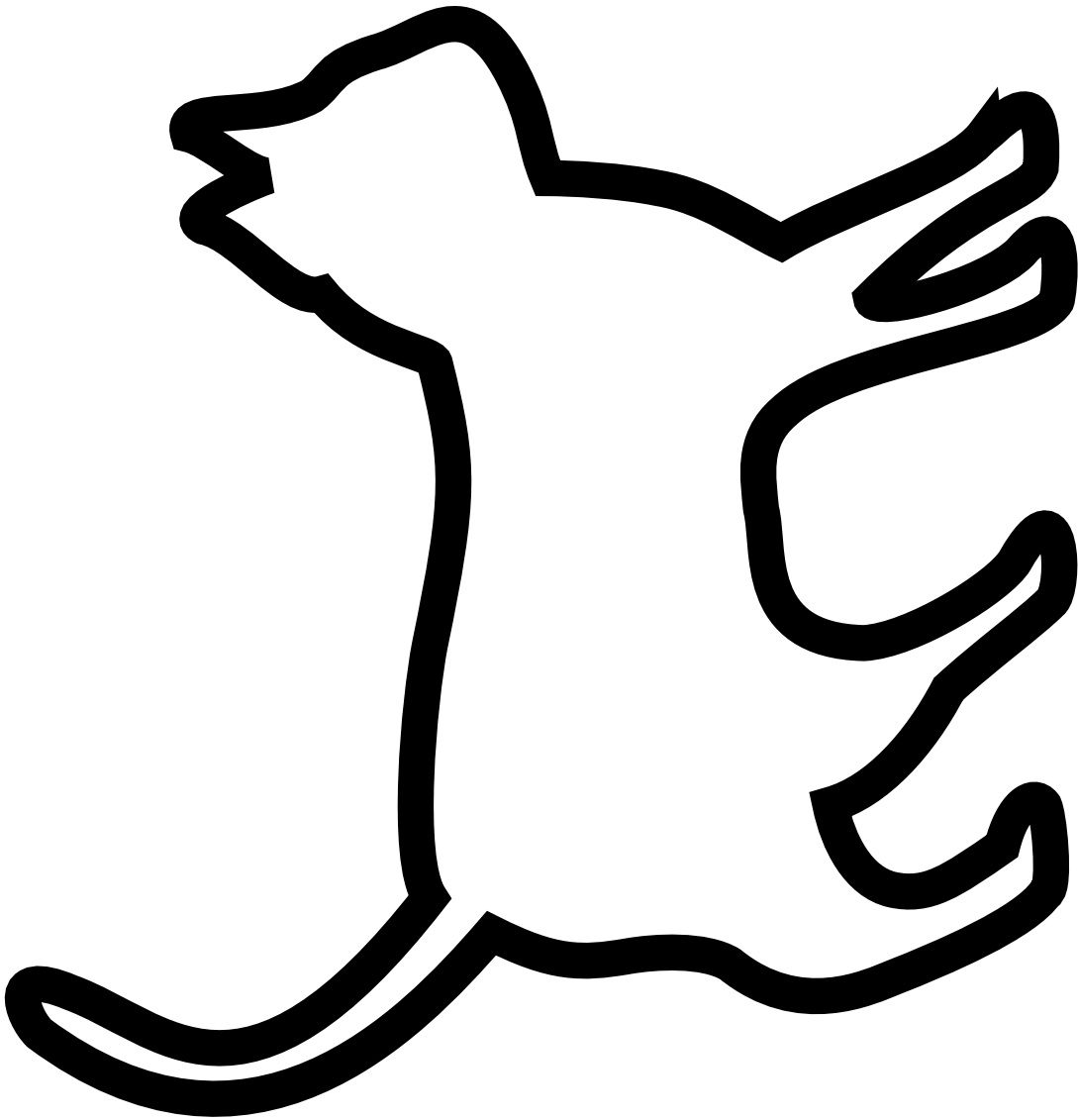

Figure 1: Here is a very small picture of a cat.

Figure 2: This is a stretched out cat to fill up the landscape page.

Table 1: A Very Wide Table

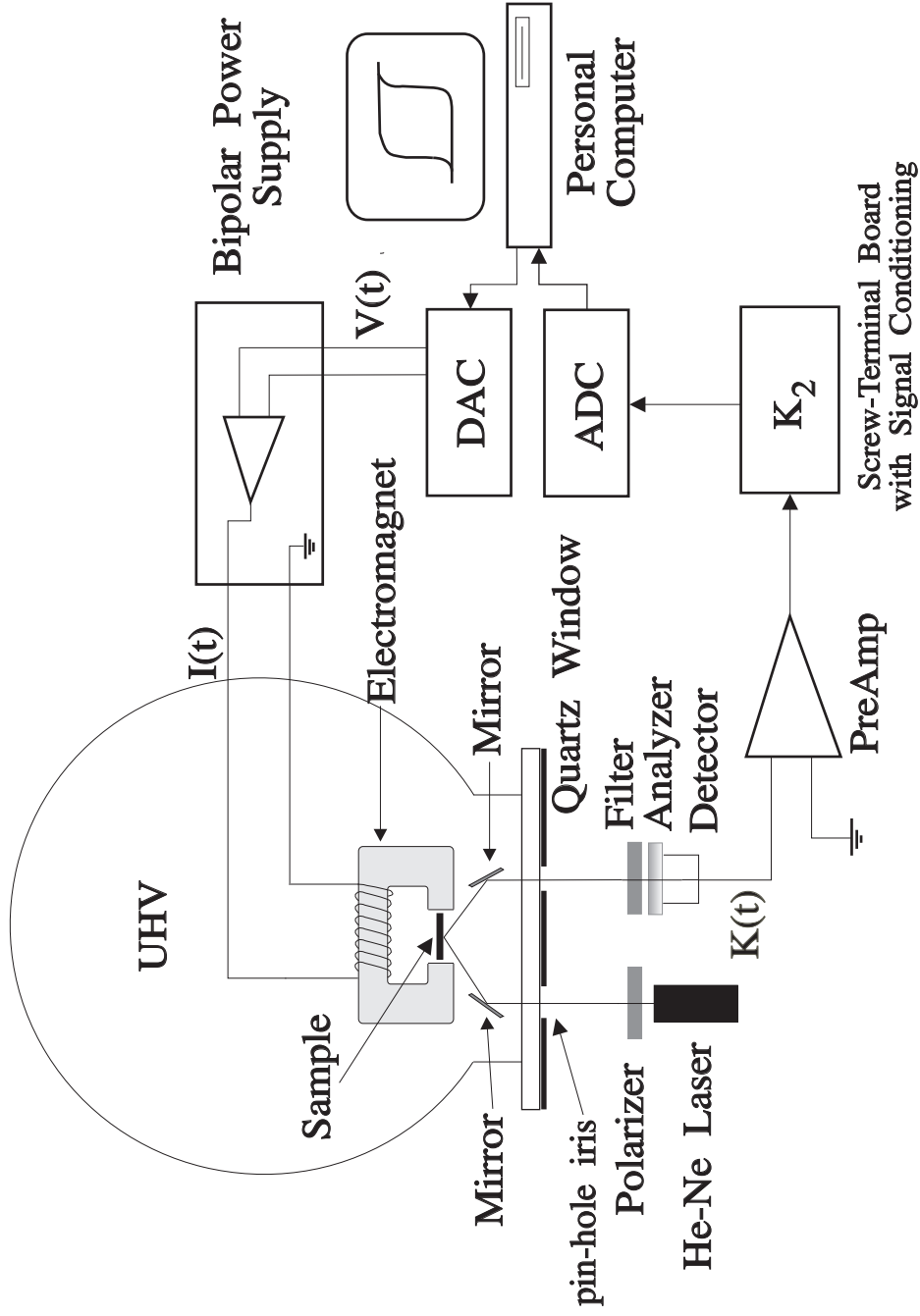| Text in columns 1 through 6						A paragraph 2.5 inches wide
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	This text is a paragraph. It will wrap around to the next line if necessary.
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	The paragraph column

Figure 3: The Block diagram of the SMOKE setup showing the electromagnet, bipolar power supply, optical components, preamplifier, photodetector, and a personal computer installed with an ADC and DAC board.