

Making Flashy Presentations with L^AT_EX

Jan Medlock
University of Washington
Applied Mathematics Department
medlock@amath.washington.edu

18 January 2001

Abstract

The purpose of this talk is to give a brief overview of three tools available to use L^AT_EX for making presentations: Foil_{T_EX}, PDF_{T_EX}, and PPOWER4.

Why Use L^AT_EX for Presentations?

Why Use L^AT_EX for Presentations?

- We already know how to use L^AT_EX!

Why Use L^AT_EX for Presentations?

- We already know how to use L^AT_EX!
- We may have formulas we want in our presentation in an existing L^AT_EX document – cut and paste!

Why Use L^AT_EX for Presentations?

- We already know how to use L^AT_EX!
- We may have formulas we want in our presentation in an existing L^AT_EX document – cut and paste!
- L^AT_EX formats math really nicely!

Why Use L^AT_EX for Presentations?

- We already know how to use L^AT_EX!
- We may have formulas we want in our presentation in an existing L^AT_EX document – cut and paste!
- L^AT_EX formats math really nicely!
- PDF is “portable” – free readers are available for many platforms including Windows, Mac, UNIX (e.g. Adobe’s Acroread).

Why Use L^AT_EX for Presentations?

- We already know how to use L^AT_EX!
- We may have formulas we want in our presentation in an existing L^AT_EX document – cut and paste!
- L^AT_EX formats math really nicely!
- PDF is “portable” – free readers are available for many platforms including Windows, Mac, UNIX (e.g. Adobe’s Acroread).
- We don’t have to use Powerpoint¹ or Windows!
 - ★ Powerpoint files can be difficult to view, particularly on non-Windows machines.
 - ★ Powerpoint presentations are huge files which can be hard to move between machines while PDF files typically fit on a single floppy disk.
 - ★ *Windows is icky.*

¹I admit point-n-click can be an advantage and Powerpoint has more features for presentations than L^AT_EX.

PDF files and PDF_TE_X

- PDF stands for “portable document format.” It maintains the fonts, formatting, colors, graphics, etc. of a document across platforms and printers. PDF also has advanced features such as page transitions, hyperlinking, compression, etc.

PDF files and PDF_TE_X

- PDF stands for “portable document format.” It maintains the fonts, formatting, colors, graphics, etc. of a document across platforms and printers. PDF also has advanced features such as page transitions, hyperlinking, compression, etc.
- Adobe distributes a free viewer for PDF called [Acroread](#) for many different operating systems.

PDF files and PDF_TE_X

- PDF stands for “portable document format.” It maintains the fonts, formatting, colors, graphics, etc. of a document across platforms and printers. PDF also has advanced features such as page transitions, hyperlinking, compression, etc.
- Adobe distributes a free viewer for PDF called [Acroread](#) for many different operating systems.
- To create a PDF file from a L^AT_EX file we would normally create a DVI file with `latex file.tex`, convert that to PS with `dvips -ofile.ps file.dvi` and then convert that to PDF with `ps2pdf file.ps file.pdf`.

PDF files and PDF_TE_X

- PDF stands for “portable document format.” It maintains the fonts, formatting, colors, graphics, etc. of a document across platforms and printers. PDF also has advanced features such as page transitions, hyperlinking, compression, etc.
- Adobe distributes a free viewer for PDF called [Acroread](#) for many different operating systems.
- To create a PDF file from a L^AT_EX file we would normally create a DVI file with `latex file.tex`, convert that to PS with `dvips -ofile.ps file.dvi` and then convert that to PDF with `ps2pdf file.ps file.pdf`.
- The package PDF_TE_X produces PDF files directly from L^AT_EX files – `pdflatex file.tex`. More importantly, it allows us to use some of the more advanced features of PDF files.

Fo_IL_TE_X

Fo_IL_TE_X is a document class for producing overhead projector slides and the like. It is much simpler and prettier than S_LI_TE_X and the `seminar` class.

Fo_IL_TE_X

Fo_IL_TE_X is a document class for producing overhead projector slides and the like. It is much simpler and prettier than S_LI_TE_X and the `seminar` class.

Using Fo_IL_TE_X:

- Declare the document class at the beginning of the document, `\documentclass[landscape]{foils}` and add `\usepackage{color}` in preamble for color slides.

Fo_IL_TE_X

Fo_IL_TE_X is a document class for producing overhead projector slides and the like. It is much simpler and prettier than S_LI_TE_X and the `seminar` class.

Using Fo_IL_TE_X:

- Declare the document class at the beginning of the document, `\documentclass[landscape]{foils}` and add `\usepackage{color}` in preamble for color slides.
- For each page `\foilhead{This is the title of this slide}`.

Fo_IL_TE_X

Fo_IL_TE_X is a document class for producing overhead projector slides and the like. It is much simpler and prettier than S_LI_TE_X and the `seminar` class.

Using Fo_IL_TE_X:

- Declare the document class at the beginning of the document, `\documentclass[landscape]{foils}` and add `\usepackage{color}` in preamble for color slides.
- For each page `\foilhead{This is the title of this slide}`.
 - ★ The `\vspace` command is useful to get spacing right.

Fo_IL_TE_X

Fo_IL_TE_X is a document class for producing overhead projector slides and the like. It is much simpler and prettier than S_LI_TE_X and the `seminar` class.

Using Fo_IL_TE_X:

- Declare the document class at the beginning of the document, `\documentclass[landscape]{foils}` and add `\usepackage{color}` in preamble for color slides.
- For each page `\foilhead{This is the title of this slide}`.
 - ★ The `\vspace` command is useful to get spacing right.
 - ★ If there is too much text to fit on one slide, some will be put on another slide (without a title).

Fo_IL_TE_X

Fo_IL_TE_X is a document class for producing overhead projector slides and the like. It is much simpler and prettier than S_LI_TE_X and the `seminar` class.

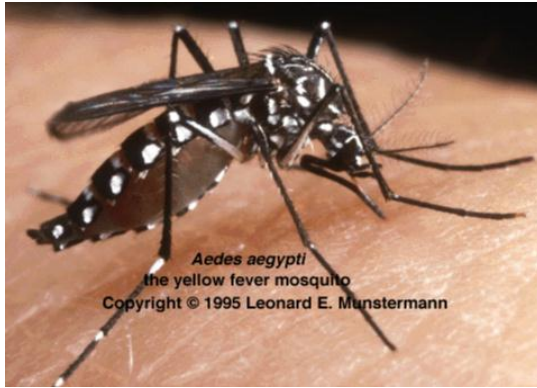
Using Fo_IL_TE_X:

- Declare the document class at the beginning of the document, `\documentclass[landscape]{foils}` and add `\usepackage{color}` in preamble for color slides.
- For each page `\foilhead{This is the title of this slide}`.
 - ★ The `\vspace` command is useful to get spacing right.
 - ★ If there is too much text to fit on one slide, some will be put on another slide (without a title).

That's it!

Next is a sample slide produced with Fo_IL_TE_X.

The Arthropod Vector



- *Aedes aegypti*, the yellow fever mosquito
 - ★ Very active in urban and suburban areas
 - ★ Breeds in any standing water (e.g. old tires, cans, cisterns, etc.)
 - ★ Well adapted to humans
 - ★ Frequently takes partial blood meals
 - ★ Life span is around 21 days



- *Aedes albopictus*, the Asian tiger mosquito
 - ★ Active in forested areas
 - ★ Not important for most human transmission of disease but may be important for its role in disease reservoir in forests
 - ★ More resistant to cold temperatures
 - ★ Higher rates of vertical transmission of dengue virus
 - ★ Recently arrived in North America

PPOWER4

PPOWER4 (PDF Presentation Post-Processor) is a post-processor for PDF files produced with PDF_TE_X and Foil_TE_X.

PPOWER4

PPOWER4 (PDF Presentation Post-Processor) is a post-processor for PDF files produced with PDF_TE_X and Foil_TE_X.

Using PPOWER4:

- Add `\usepackage{pause}`, `\usepackage{background}`, `\usepackage{pp4slide}`, `\usepackage{hyperref}` to the preamble.

PPOWER4

PPOWER4 (PDF Presentation Post-Processor) is a post-processor for PDF files produced with PDF_TE_X and Foil_TE_X.

Using PPOWER4:

- Add `\usepackage{pause}`, `\usepackage{background}`, `\usepackage{pp4slide}`, `\usepackage{hyperref}` to the preamble.
- Produce PDF from _TE_X source with `pdflatex file.tex`, then post-process with `ppower4 file.pdf file.1.pdf`. This produces a new file, `file.1.pdf`, with the effects.

PPOWER4

PPOWER4 (PDF Presentation Post-Processor) is a post-processor for PDF files produced with PDF_TE_X and Foil_TE_X.

Using PPOWER4:

- Add `\usepackage{pause}`, `\usepackage{background}`, `\usepackage{pp4slide}`, `\usepackage{hyperref}` to the preamble.
- Produce PDF from T_EX source with `pdflatex file.tex`, then post-process with `ppower4 file.pdf file.1.pdf`. This produces a new file, `file.1.pdf`, with the effects.
- Three different commands for backgrounds
 - ★ `\pagecolor{color}` for solid color.
 - ★ `\vpagecolor[color1]{color2}` for vertical gradient (like this page).
 - ★ `\hpagecolor[color1]{color2}` for horizontal gradient.

PPOWER4 Continued

- The `hyperref` package can be used to make hyperlinks to files, webpages (<http://www.amath.washington.edu>) or other parts of the document (References).

PPOWER4 Continued

- The `hyperref` package can be used to make hyperlinks to files, webpages (<http://www.amath.washington.edu>) or other parts of the document (`References`).
- The `_pause` command produces partial pages. For example at the end of this line there is a `_pause` command

PPOWER4 Continued

- The `hyperref` package can be used to make hyperlinks to files, webpages (<http://www.amath.washington.edu>) or other parts of the document (`References`).
- The `_pause` command produces partial pages. For example at the end of this line there is a `_pause` command – it waits for a keypress to display the rest of the page.

PPOWER4 Continued

- The `hyperref` package can be used to make hyperlinks to files, webpages (<http://www.amath.washington.edu>) or other parts of the document (References).
- The `\pause` command produces partial pages. For example at the end of this line there is a `\pause` command – it waits for a keypress to display the rest of the page.
 - ★ We can also use transition effects with `\pause` like Dissolve or Wipe.

PPOWER4 Continued

- The `hyperref` package can be used to make hyperlinks to files, webpages (<http://www.amath.washington.edu>) or other parts of the document (References).
- The `\pause` command produces partial pages. For example at the end of this line there is a `\pause` command – it waits for a keypress to display the rest of the page.
 - ★ We can also use transition effects with `\pause` like Dissolve or Wipe.
- We can use transition effects for pages too. For example the next page is set to Box Out.

PPOWER4 Continued

- Of course, all these transitions effects can get tiresome.

PPOWER4 Continued

- Of course, all these transitions effects can get tiresome.

That's it for PPOWER4.

PPOWER4 Continued

- Of course, all these transitions effects can get tiresome.

That's it for PPOWER4.

Miscellany

- We still have the standard L^AT_EX tools for displaying math.

PPOWER4 Continued

- Of course, all these transitions effects can get tiresome.

That's it for PPOWER4.

Miscellany

- We still have the standard L^AT_EX tools for displaying math.

$$\left| \int_{\Omega} fg d\mu \right| \leq \|f\|_p \|g\|_q \quad \text{for} \quad \frac{1}{p} + \frac{1}{q} = 1, \quad 1 \leq p, q \leq +\infty$$

Miscellany Continued

- And we can show partial pages with formulas.

Miscellany Continued

- And we can show partial pages with formulas.

$$\left| \int_{\Omega} f d\mu \right| \leq \int_{\Omega} |f| d\mu$$

Miscellany Continued

- And we can show partial pages with formulas.

$$\begin{aligned} \left| \int_{\Omega} f d\mu \right| &\leq \int_{\Omega} |f| d\mu \\ &\leq \sup_{\Omega} |f| \int_{\Omega} d\mu \end{aligned}$$

Miscellany Continued

- And we can show partial pages with formulas.

$$\begin{aligned} \left| \int_{\Omega} f d\mu \right| &\leq \int_{\Omega} |f| d\mu \\ &\leq \sup_{\Omega} |f| \int_{\Omega} d\mu \\ &\leq \sup_{\Omega} |f| \mu(\Omega) \end{aligned}$$

Miscellany Continued

- And we can show partial pages with formulas.

$$\begin{aligned} \left| \int_{\Omega} f d\mu \right| &\leq \int_{\Omega} |f| d\mu \\ &\leq \sup_{\Omega} |f| \int_{\Omega} d\mu \\ &\leq \sup_{\Omega} |f| \mu(\Omega) \end{aligned}$$

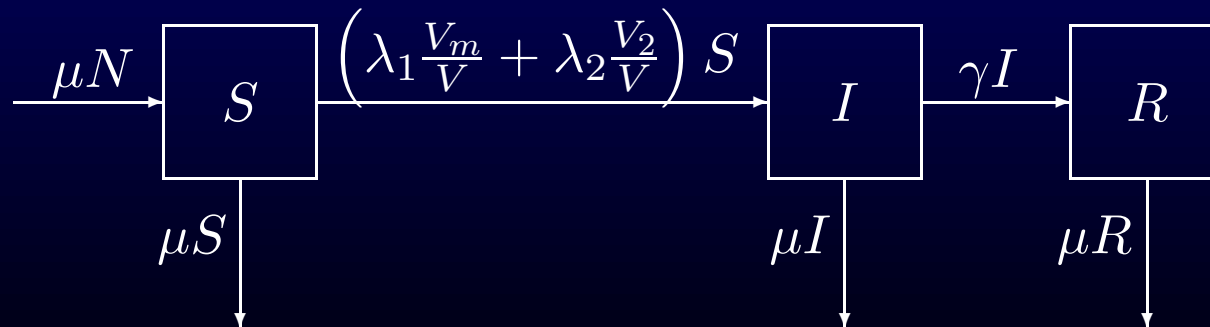
- And we can use the `picture` environment to make simple figures.

Miscellany Continued

- And we can show partial pages with formulas.

$$\begin{aligned} \left| \int_{\Omega} f d\mu \right| &\leq \int_{\Omega} |f| d\mu \\ &\leq \sup_{\Omega} |f| \int_{\Omega} d\mu \\ &\leq \sup_{\Omega} |f| \mu(\Omega) \end{aligned}$$

- And we can use the `picture` environment to make simple figures.

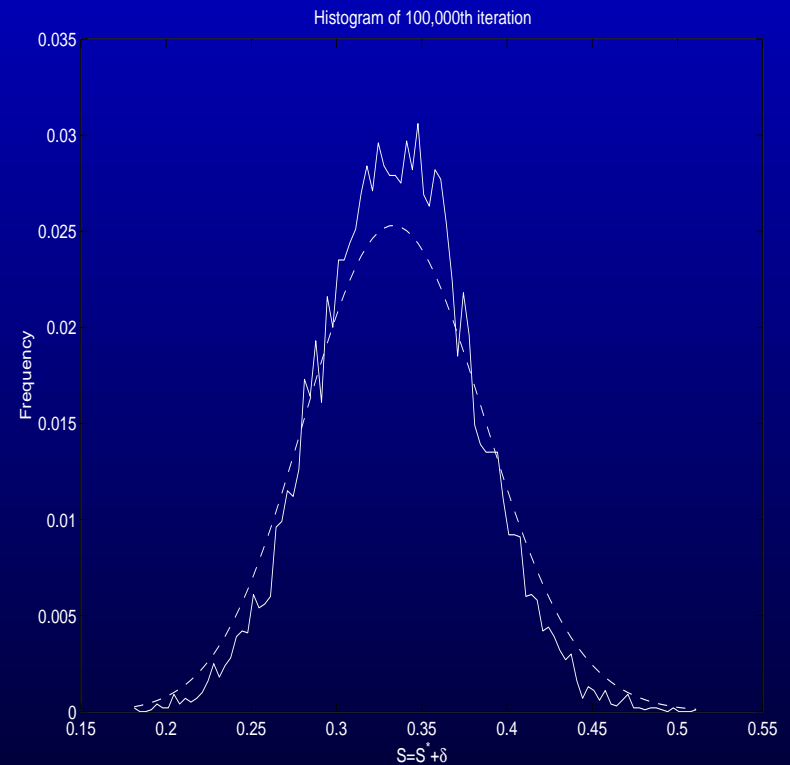
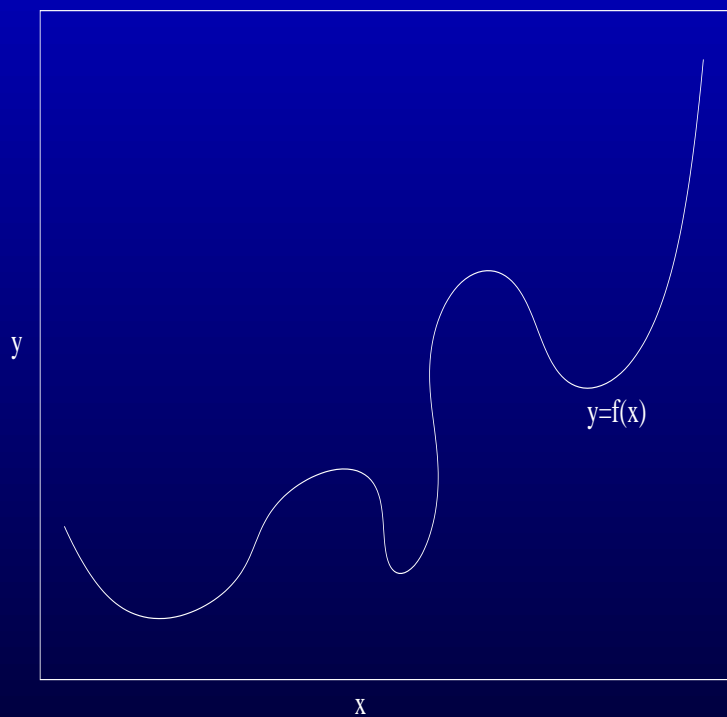


Miscellany Continued

- We can use the `graphics` or `graphicx` package to include figures or plots made with `xfig`, MATLAB, etc.

Miscellany Continued

- We can use the `graphics` or `graphicx` package to include figures or plots made with `xfig`, `MATLAB`, etc.



These were saved as `eps` files and then converted to PDF using `epstopdf`.

Miscellany Continued

- We can also include graphics with the `graphics` or `graphicx` package.

Miscellany Continued

- We can also include graphics with the `graphics` or `graphicx` package.



This is a `jpg` file. We can also use `tiff` and `png`.

Summary

- These tools (PDF_TE_X, Foil_TE_X and PPOWER4) allow us to make **really flashy** presentations with all of the usual benefits of L^AT_EX (nice math formatting, including figures, ...). The resulting presentation is then viewable on a wide variety of machines.

References

- This document:
<http://www.amath.washington.edu/~medlock/presentation.html>
- Local (AMath) L^AT_EX documentation:
`/usr/local/lib/tex/doc`
- Comprehensive T_EX Archive Network (CTAN) – the packages can be found here:
<http://www.ctan.org>
- PPOWER4 homepage:
<http://www-sp.iti.informatik.tu-darmstadt.de/software/ppower4/>

- Adobe's information on PDF:
<http://www.adobe.com/products/acrobat/adobepdf.html>
- Download Adobe's Acroread:
<http://www.adobe.com/products/acrobat/readstep2.html>
- XPDF – a PDF viewer for X11:
<http://www.foolabs.com/xpdf/>