PRESENTATIONS USING seminar.sty

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• The basics
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• Color and other fancy stuff
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WHAT IS seminar.sty?

Background: seminar.sty is a \LaTeX document class for typesetting slides
• Created and freely distributed by Timothy Van Zandt at Princeton University
• Has been around for over 10 years
• One of many resources for creating presentations using \LaTeX and still one of the most popular

Here: A very brief introduction
• See the User’s Guide and examples on the class web page for much more…

THE BASICS

Usage: For full-sized slides
\begin{slide}
stuff on slide
\end{slide}

• Creates a slide in landscape format
• Can also create slides in portrait format; may be useful for presentations using transparencies (which no one uses anymore!) but not for presentations using a laptop
\begin{slide*}
stuff on slide
\end{slide*}
Content of slides: May be anything

- Text
- Math (mathematical expressions, displayed equations, etc.)
- Tables and figures (imported graphics)
- Pictures

Size of slide content: Scaled to be larger than in a regular document

- ...So there is a limit to what will fit on a slide (more later)

Use of packages: Most \LaTeX\ packages may be used with \texttt{seminar.sty}

- Packages for importing graphics
- Here, I have used \texttt{fancyheadings.sty} to create a “header” and “footer” for each slide (these could in fact be changed during the presentation; e.g., display the title of the current section); see slide 15
- In addition, \texttt{seminar} has its own commands

Special commands: Like any \LaTeX\ package, \texttt{seminar} defines a number of commands

- See the documentation for a complete description (slide 29)

Examples:

- Vertical positioning – default is for material on each slide to be vertically centered; may be changed to be flush to the top using \texttt{\centerslidesfalse}

  and back to centered again with \texttt{\centerslidestrue}

- Frames – default is for slides to have a frame (the \texttt{plain} style); may be changed to with

  \texttt{\slideframe{style}}

  where valid styles are \texttt{plain} and \texttt{none}; the \texttt{fancybox} package offers further options

Examples, continued:

- Use \texttt{\slideframe{none}} for laptop presentations (coming up)
- Size – Dimensions are set using \texttt{\slideheight} and \texttt{\slidewidth} (defaults are 8.5 in wide and 6.3 in high), e.g., these slides use

  \texttt{\setlength{\slideheight}{6.6in}}
Preparing handouts: Printed slides two-to-a-page (“two-up”) or four-to-a-page (“four-up”)

- Printing “two-up”
  \documentclass[article,portrait]{seminar}
  \twoup[1]
  \begin{slide}
  \bf \red Dental trajectories for 27 children:
  \begin{figure}
  \begin{center}
  \includegraphics[height=2.5in]{dental.ps}
  \end{center}
  \end{figure}
  \end{slide}

- Printing “four-up”
  \documentclass[article,portrait]{seminar}
  \begin{slide}
  \bf Dental trajectories for 27 children:
  \begin{figure}
  \begin{center}
  \includegraphics[height=2.5in]{dental.ps}
  \end{center}
  \end{figure}
  \end{slide}

Colors:

- Some colors (including red, green, blue, cyan, magenta, and yellow) are predefined
- Others can be defined
- See the template file and the pstricks documentation (link on the class web page)
Making headings: I use the following `\newcommand` that exploits the `shadow` package

```latex
\newcommand{\myheading}[1]{\begin{center}\shabox{ \bf #1} \end{center}}
```
and invoke it as

```
\myheading{\textcolor{blue}{COLOR AND OTHER FANCY STUFF}}
```

Making bullets: I make colored bullets with

```latex
\newcommand{\bulletitem}{\item \textcolor{red}{$\mbox{}$}}
```

```
\begin{itemize}
\bulletitem This item will have a red bullet
\end{itemize}
```

Other neat stuff: Drawing arrows to stuff using the `ps-node` package

```latex
$$\rnode{lt}{\epsilon_j}=\rnode{ft}{\epsilon_{1j}}+\rnode{st}{\epsilon_{2j}}$$
```

\hspace*{\fill}
\hfill\rnode{tl}{Overall deviation}
\hfill\rnode{tf}{Measurement Error}
\hfill\rnode{ts}{“Fluctuation”}

\nccurve[linecolor=blue,angleA=90,angleB=270]{->}{tl}{lt}
\nccurve[linecolor=blue,angleA=90,angleB=270]{->}{tf}{ft}
\nccurve[linecolor=blue,angleA=90,angleB=270]{->}{ts}{st}

\begin{itemize}
\item\epsilon_j = \epsilon_{1j} + \epsilon_{2j}
\end{itemize}

Other neat stuff: Here’s how I made the headers and footers—this goes at the beginning of the document body

```latex
\pagestyle{fancy}
\setlength{\headrulewidth}{0.15pt}
\setlength{\footrulewidth}{.15pt}
\rhead{\includegraphics[height=0.3cm]{newlogo.ps}}
\lhead{\scriptsize \sl ST 810A, M. Davidian, Spring 2004}
\lfoot{\scriptsize \sl Presentations using \tt seminar.sty}}
\cfoot{ }\rfoot{\scriptsize \rm \theslide}
```

Other neat stuff: Can insert math into figures using the `psfrag` package—put the following before the figure

```latex
\psfrag{alpha0}{\scriptsize $\alpha_{i0}$}
\psfrag{alpha1}{\scriptsize $\alpha_{i1}$}
\psfrag{density}{\tiny density}
```

- Replaces the first argument with the second
Without psfrag:

With psfrag:

**POINTERS FOR MAKING GOOD SLIDES**

**Personal view:**

- *Good slides* are simple slides – try not to pack too much on one slide, and try not to make busy slides
- Use a consistent style throughout a presentation
- Use *bullets* to organize material
- Use *color* for highlighting important points (but remember some colors may not show up well on screen or on handouts)
- If appropriate, use lots of figures
- Use tables of numbers sparingly
- Do not introduce too much notation; your audience will never remember it all!

**LAPTOP PRESENTATIONS**

These days... Transparencies are a thing of the past!

- Projection equipment is now reliable
- Projection is slicker
- Can use *devices* such as *overlays* (possible with *seminar*) and slick *slide transitions* (possible with add-ons to *seminar*)
- More generally, use of a laptop allows greater flexibility (e.g., show video clips, access web sites, etc.)

Result: The modern presenter will prepare a *laptop presentation*

- Standard in *industry*
- Standard at *statistical meetings, seminars*
**Animation:** There are many popular *effects* that one can exploit in a laptop presentation

- A useful such effect is the ability to uncover material on a slide a little bit at a time
- Sometimes called “cumulative overlays”
- `seminar` only does “non-cumulative” overlays

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**Cumulative overlays:** Not built-in to `seminar`, but there is a *fix-up*

- Add the following to the preamble:
  ```latex
  \makeatletter
  \def\pst@initoverlay#1{%
  \pst@Verb{%/BeginOL {dup (all) eq exch TheOL le or {IfVisible not {Visible/IfVisible true def} if} {IfVisible {Invisible /IfVisible false ifelse} def
  \tx@InitOL /TheOL (#1) def}}
  \makeatother
  ```

---

To uncover material a bit at a time:

```latex
\begin{overlay}{0}
This comes up first\ldots
\end{overlay}
```

```latex
\begin{overlay}{1}
And then this\ldots
\end{overlay}
```

```latex
\begin{overlay}
And finally this!
\end{overlay}
```
This comes up first...
   And then this...

And finally this!

Overlay facts:
- May be turned on or off with \overlaystrue and \overlaysfalse (for printing handouts)
- See the class web page for the source code to a full talk made with seminar that makes use of cumulative overlays

Personal opinion: There can be too much of a good thing when it comes to fancy slide shows
Recommendations:

- Learn how to make laptop presentations
- Get used to using a laser pointer
- Become comfortable – remember, you can’t write on slides!
- Presentations with a laptop are fun!

How to project slides made using seminar?

- Create a pdf file
  
  ```
  stat% add acrobat
  stat% latex myslides
  stat% dvips -P pdf myslides
  stat% distill myslides.ps
  ```

- Can use full screen mode of Acrobat reader
- Can also use new versions of ghostview to project postscript version in full screen mode
- Advantage of pdf – portability (many Windows users will not have postscript viewer installed)

WHERE TO LEARN MORE

Written and web resources:

- Van Zandt, T. (1993) seminar.sty: A \LaTeX{} Style for Slides and Notes. (Available on the class web page, along with a template file and examples.)

- Examples, other resources (prepared by Denis Girou) available at http://www.tug.org/applications/Seminar/ (There is a link on the class web page.)

COMPETING PACKAGES

For making laptop presentations:

- seminar is really a basic choice
- Other packages allow fancy backgrounds, neat slide transitions, etc.
- Options are too numerous to demonstrate
Some possibilities:

- prosper – uses seminar but adds fancy backgrounds, slide transitions (see link on the class web page)
- texpower
- foiltex, pdftex/pdflatex
- ppower4
- Go to google and type latex presentations!
- Some links to examples available on the class web page