Introduction to Beamer Presentations
Lecture 8

David Kraemer & Caleb Leedy

December 11, 2014

Outline

Last time

- We got acquainted with BibTEX, LATEX's in-house references manager
- We learned how to use stored BibTEX entries to cite sources within papers
- We saw how to change the citation style in your document
- We learned about .bib files and how to integrate them into your paper
- Finally, we introduced BibLATEX, a more modern and robust citation tool

This time

- We will learn about LaTeX's beamer presentations class
- We will go through some of the basic features and environments for presentations
- Finally, we will explore some of beamer's custom themes and color designs

The beamer document class

- Open a new .tex file and in the preamble type

```
\documentclass{beamer}
\begin{document}

\end{document}
```

- Much like how PowerPoint is oriented around slides, beamer presentations are constructed using the frame environment.

The frame environment

- Each frame environment consists of a simple template:

```
\begin{frame}{Frame title}
% Frame content goes here
 \end{frame}
```

- frame also has optional arguments. For example,
  \begin{frame}[t] sets the text alignment to the top of the
  slide, instead of the center.
- Other optional arguments can be found on the Wikibooks
  page.

Nuances of frame

- The frame environment is sensitive to certain environments.
- Specifically, the verbatim environment won't cooporate with beamer frames.
- To get around this, include the optional argument fragile.
- The drawback is this makes the frame environment somewhat unpredictable.

More frame stuff

- Basic animation can be achieved with the \pause command.
- For example, consider the code:

```
\item This comes first \pause then this is second
```

- This comes first

More frame stuff

- Basic animation can be achieved with the \pause command.
- For example, consider the code:

\item This comes first \pause then this is second

- This comes first then this is second
- What makes the effect of an animation is really a simple slide duplication.

More frame stuff

- There are more animation options for list elements.
- Consider the following code:

```
\begin{itemize}
    \item<1-1> First
    \item<2-2> Second
    \item<3-3> Third
 \end{itemize}
```

More frame stuff

- First

More frame stuff

- Second

More frame stuff

- Third

More frame stuff

- Here's another approach to the problem.

```
\begin{itemize}[<+-+>]
    \item Alternatively, you can do this
    \item This method is easier
\end{itemize}
```

More frame stuff

- Alternatively, you can do this

More frame stuff

- This method is easier

Themes and Colors

- The beamer class comes with a number of built-in themes and colors
- The full list can be found at the Beamer Theme Matrix Site
- To change a theme, add the following to the preamble:

  \usetheme{Dresden}
  \usecolortheme{beaver}

Title slides, sections, and outlines

- The title works the same way in other documents, only \maketitle makes a title frame.
- Include sections in front of frame as you would a typical document.
- Then, include this code to produce an outline frame.

```
\begin{frame}{Outline}
\tableofcontents
 \end{frame}
```

- This produces the outlines that you have seen in these presentations.

Final thoughts

- We hope these lectures have been informative for you.
- Hopefully you feel that you have learned a thing or two about LaTeX.
- Good luck on your professional typesetting projects!