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# Beamer in a Nutshell

presentation with  $\text{\LaTeX}$  made easy

# Outline

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# What's Beamer?

- Beamer is a flexible  $\text{\LaTeX}$  class for making slides and presentations.
- It supports functionality for making PDF slides complete with colors, overlays, environments, themes, transitions, etc.
- Adds a couple new features to the commands you've been working with.

# Advantages of Beamer

- The standard commands of  $\text{\LaTeX}$  also work in Beamer. If you can write basic  $\text{\LaTeX}$ , you can easily make a Beamer presentation.
- You can easily create overlays, themes allow you to change the appearance of your presentation to suit your purposes.
- The layout, colors, and fonts used in a presentation can easily be changed globally, but you also have control over the most minute detail.

# Advantages of Beamer

- Each theme is designed to be highly usable and readable. This makes the presentation more professional looking and easier for the audience to follow.
- The final output is typically a **.pdf** file. Viewer applications for this format exist for virtually every platform.
- **Your presentation will look exactly the same no matter which computer or viewer program is being used.**

# Template

```
1 % !TEX program = xelatex
2 \documentclass[aspectratio=169,utf8]{ctexbeamer}
3
4 \usepackage{graphicx,hyperref}
5 \usepackage{xcolor}
6 \usefonttheme{serif}
7 \usepackage{fontspec}
8 \setmainfont{Helvetica Neue}
9 \setCJKmainfont{PingFang SC}
10
11 \title[short title]{long title}
12 \subtitle[short subtitle]{long subtitle}
13 \author[short name]{long name}
```

→

```
14 % \begin{document}
15 % \begin{frame}
16 %   \titlepage
17 % \end{frame}
18 % \begin{frame}
19 %   \frametitle{Outline}
20 %   \tableofcontents
21 % \end{frame}
22 % \section{Some Section}
23 % \begin{frame}
24 %   \frametitle{Section Title}
25 %
26 %   Section content
27 % \end{frame}
28 % \end{document}
```

# Insert Title Information

## Commands To Change

- `\title[short title]{long title}`
- `\subtitle[short subtitle]{long subtitle}`
- `\author[short name]{long name}`
- `\date[short date]{long date}`
- `\institution[short name]{long name}`

# Frames

- Each Beamer project is made up of a series of frames.
- Each frame produces one or more slides, depending on the slide's overlays, which will be discussed later.



# Frames

Frames are very simple to make. Simply write your own text or  $\text{\LaTeX}$  code between the begin/end frame commands.

The alignment option is centered `[c]` by default. The values `[t]` (top align) and `[b]` (bottom align) are also accepted.

# Frames

- The `[plain]` option for the frame environment causes the headlines, footlines, and sidebars to be suppressed. This can be useful for showing large pictures.
- If you already have a  $\text{\LaTeX}$  document, you can simply wrap `begin {frame}` and `end {frame}` commands around the information you want to present.

## Sections and Subsections

- Presentations are divided into sections, subsections, and sub-subsections.
- Each call to the `section {section name}`, `subsection {subsection name}`, or `subsubsection {sub-subsection name}` **command**:
  - Inserts a new entry into the table of contents at the appropriate tree-level.
  - Inserts a new entry into the navigation bars.
  - Does not create a frame heading.
- Another version of the command, `subsection *{section name}`, only adds an entry in the navigation bars, *not* the table of contents.

# Sections and Subsections

Section specifications are declared between the frames, so they have no direct effect on what is shown inside each frame.

## Common Text Commands and Environments

You can use the same text commands and environments in Beamer that you do in  $\text{\LaTeX}$  to change the way your text is displayed.

### Common Text Commands

TODO

# Verbatim Text

# Semiverbatim Text

# Font Size



# Font Families

# Alightment

align

# Spacing

spacing

# Lists

lists

# Lists - Itemize

# Lists - Enumerate

# Lists - Description

# Overlays



# Overlays - Pause

# Overlays - Specifications

# Tables

tables

# Blocks

# Columns

# Text Boxes

# Graphics

graph

# Transition

transition



Thanks.