

Introduction to Scientific Typesetting

Lesson 10: Presentations with \LaTeX

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Working with `beamer` means working with a new document class. Thus, the first line of your file now should be

```
\documentclass{beamer}
```

On your personal computer, there are several things \LaTeX will need to download the first time you try to build with this in your file. Be patient.

The best build profile to use with `beamer` is `LaTeX => PDF`. In fact, if you want to use a different profile you'll need to make some changes to the preamble (or get an error).

There are *lots and lots* of options here. Different *themes* are available in beamer. See `beamer-themes.pdf` for a sample. Here are the themes represented in that compilation.

default	Bergen	Boadilla
Madrid	AnnArbor	CambridgeUS
Antibes	Berkeley	Goettingen
Hannover	Berlin	Singapore
Copenhagen	Malmoe	

Use one of these by placing `\usetheme{theme}` in the preamble.

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Modifying the Theme

In addition to the theme, `beamer` provides ways to modify the color scheme, the *inner* elements and the *outer* elements.

Color theme	Inner Elements	Outer Elements
albatross	lilly	whale
beetle	orchid	seahorse
crane	rose	dolphin
fly		
seagull		

All combinations are possible; not all look good, so you'll have to experiment.

```
\usetheme{Malmoe}  
\usecolortheme{beetle}  
\usecolortheme{whale}
```

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1. Look through `beamer-themes.pdf` to find a theme you like.
2. Open the first example file (`.tex`) and make sure that `LaTeX => PDF` is your build profile.
3. Experiment with different choices of `\usecolortheme{..}` combined with your theme. Take a few minutes.

For future design, you might consult pages 135–170 in the `beamer` user's manual (posted online).

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The commands for the title of your presentation are (for the most part) familiar ones.

```
\title{Testing Out Beamer}  
\author{Ryan Higginbottom}  
\institute{W\&J College}  
\date{\today}
```

Then the title slide is produced by:

```
\begin{document}  
\begin{frame}  
  \titlepage  
\end{frame}
```

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A presentation can have sections and subsections just like a document. These are called the same way as in the `article` class. Sectioning commands must be placed *between frames*.

The table of contents slide is traditionally the second one in a presentation.

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

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One frame in a beamer presentation may have several *overlays*—this is the technique where information is uncovered gradually instead of all at once.

The easiest way to do this is with the `\pause` command.

You see the first half of this sentence before you see the second half.

You see the first half of this sentence `\pause` before you see the second half.

Other ways to create overlays:

- `\only<2,3>\{stuff}` — `stuff` only appears on overlays 2 and 3; on other overlays it is ignored
- `\onslide<2,3>\{stuff}` — `stuff` only appears on overlays 2 and 3; on other overlays it is typeset but invisible

Most of the time you'll want `\onslide`. Here's the difference:

Overlays are awesome

Overlays are awesome

```
\onslide<1,3->\{Overlays}\onslide<2->\{are awesome}
```

```
\only<1,3->\{Overlays}\only<2->\{are awesome}
```

Other Commands and Overlays

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This syntax for overlays can be used with other commands.

```
\textbf<2>{Occasionally bold}
```

```
\includegraphics<2>{class-logo.jpg}
```

```
\begin{itemize}
```

```
\item<1-> First item
```

```
\item<2-> Second item
```

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Let's practice!

Open the second example file (.pdf) and reproduce it.

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powerdot is a new document class like beamer.

```
\documentclass{powerdot}
```

Again, on your personal machines L^AT_EX may need to download a lot the first time around.

The build profile is not optional here; you must use
LaTeX => PS => PDF.

Lots of options here too. Different *styles* are available in powerdot. See `powerdot-styles.pdf` for a sample. Here are the styles represented in that compilation.

default	tycja	fyma
elcolors	aggie	sailor
horatio	paintings	klope
jefka		

Use one of these by placing `style=klope` as an option for `\documentclass`.

```
\documentclass[style=klope]{powerdot}
```

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A lot of these styles have different *palettes*. Call one of these by putting this in the preamble:

```
\pdsetup{palette=selection}
```

```
\documentclass [style=sailor] {powerdot}  
\pdsetup{palette=Sea}
```

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1. Look through `powerdot-styles.pdf` to find a style you like.
2. Open the third example file (`.tex`) and make sure that `LaTeX => PS => PDF` is your build profile.
3. Experiment with different choices of the `palette` for your theme. Take a few minutes.

For future design, you might consult pages 21–25 in the `powerdot` user's manual (posted online).

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Familiar stuff:

```
\title{Testing Out Beamer}  
\author{Ryan Higginbottom}  
\date{\today}
```

```
\begin{document}  
\maketitle
```

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As with `beamer`, sectioning commands need to go between *slides*.

The table of contents slide would be generated like this.

```
\begin{slide}{An Overview}
\tableofcontents[content=sections]

\end{slide}
```

The options for `\tableofcontents` are listed on pages 15–16 of the `powerdot` manual.

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There are several ways to accomplish overlays:

- `\pause` — works exactly like in beamer
- `\onslide{slides}{stuff}` — `stuff` only appears on the specified overlays; on other overlays it is invisibly typeset
- `\item<overlays>` — within `enumerate` or `itemize` environment, this item only shows up on the specified overlays

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Let's practice!

Open the fourth example file (.pdf) and reproduce it.

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Using hyperref

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These packages create PDF files, so the `hyperref` package is fair game.

You can use it just like in the `article` class.

Warning: Clicking around a bunch in a presentation can be distracting to your audience.

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Transitions

Both `beamer` and `powerdot` create PDF files for you to use for presentations. This is unlike PowerPoint in that there are no fancy transitions.

This is not a bad thing!

Sometimes people can get so hung up on PowerPoint fanciness that their content suffers (or vanishes). One of the consistent strengths of L^AT_EX is separating content from form.