

The MWG \LaTeX beamer theme

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Dedicated to my teachers and fellow students in year 11

*They showed me the beauty of \LaTeX
as well as the several flaws of MS Office documents*

Abstract

The MWG beamer theme is considered as a beamertheme suitable for every possible use. It uses the red color and the logo of the Markgräfin Wilhelmine Gymnasium, Bayreuth.

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Important note

Since the MWG logo included in the footline by default consists of a TikZ source up to 5 850 lines long, presentations may compile very long time. This can be very nasty, especially during the process of creating the presentation.

To reduce the amount of time required for compiling, the theme uses a simplified version of the logo. Simplified means that details not visible to your audience got removed, resulting in a reduction of compilation time to approx. $\frac{1}{3}$. However, the detailed version is still available when using the `hqlogo` option.

You can remove the logo *temporary* by passing the `draft` option or *permanently* by passing other options. See section 2 for further details.

Dependencies and other requirements

The MWG theme requires \LaTeX 2 ϵ and – in addition to the ones requested by the beamer class – following packages:

<code>appendixnumberbeamer</code>	A simple solution for appendix frames not being calculated into the total number of frames
<code>etoolbox</code>	Provides access on ϵ - \LaTeX primitives
<code>tikz</code>	The frontend to pgf used for drawing background and logo

Call for cooperation

Please report bugs and other problems as well as suggestions for improvements to my email address (sfr682k@t-online.de).

Style sample

The style sample shown in figure 1 was made using the sample presentation “Writing presentations in \LaTeX beamer?” created by Sebastian Friedl¹.

License

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The latest version of this license is available at <http://www.latex-project.org/lppl.txt> and version 1.3c or later is part of all distributions of \LaTeX version 2008-05-04 or later.

This work has the LPPL maintenace status ‘maintained’. The current maintainer of this work is Sebastian Friedl.

This work consists of the following files:

- `beamerthemeMWG.sty` and
- `beamerthemeMWG_documentation.tex`

¹Source available on GitHub (*WTFPL*)

Does this make sense?

- 1 WHY SHOULD I USE L^AT_EX BEAMER?
- 2 ADVANTAGES
- 3 DISADVANTAGES
- 4 CONCLUSION

A simple argument

COULOMB'S LAW

$$F = k_{\epsilon} \frac{q_1 q_2}{r^2}$$

...in PowerPoint¹? **IMPOSSIBLE** ...

DEDICATED TO BOTH, \LaTeX BEAMER'S DEVELOPERS AND (POSSIBLE) USERS
SEBASTIAN FRIEDL: WRITING PRESENTATIONS IN \LaTeX BEAMER?

1. **Big disadvantages:** *There are none!*
2. **"Real" disadvantages:**
 - 2.1 Some things easily possible in PowerPoint are hard to fulfil and need some "out of the box"-thinking
 - 2.2 The ugly Computer Modern fonts are used by default
3. **No real disadvantages:**
 - 3.1 You can simply mix itemizations and enumerations:
 - You're getting confused about that?
 - It's your problem, not mine ...
 - 3.2 You'll have to learn some \LaTeX commands if you didn't do so
 - 3.2.1 \LaTeX is an enrichment and capable of (nearly) everything!
 - 3.2.2 "Out of the box"-thinking turns your brain!

L^AT_EX is nearly almighty! You can even typeset sudokus with it ...

Just download the current version of T_EXLive from tug.org

Actually, some people are simply too dumb for using \LaTeX or recognizing the big advantages of it.

APPENDIX

If you don't want appendix frames being counted into the total number of frames you may load the `appendixnumberbeamer` package in your document's preamble.

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1 Using the theme

For using the theme you have to copy the file `beamerthemeMWG.sty` into the folder containing the master file of your presentation. Advanced users may also install the style file on their local system.

After that, simply use the command `\usetheme{MWG}` to set the theme used in your presentation to the MWG theme.

2 Theme options

Passing some options to the theme influences the way it behaves.

Syntax: `\usetheme[<option1>, <option2>, ...]{MWG}`

Available options:

<code>nologo</code>	No logos will be shown anywhere on the frame
<code>draft</code>	Prevents placement of the logo in the footline but keeps reserving the space. In contrast to the <code>draft</code> option of the <code>beamer</code> class, the other contents of the frame still stay the same and remain displayed.
<code>externallogo</code>	Removes the logo from the footline and the logo specified with the <code>\logo</code> command will be shown on the right-hand side directly above the footline
<code>hqlogo</code>	Uses the detailed version of the logo instead of the simplified one
<code>nosmallcaps</code>	Apply this option if the used fonts don't provide a small caps shape
<code>notoc</code>	This option prevents the navigation being placed in the headline, resulting in an empty headline. Use the <code>noheadline</code> option for removing the complete headline.
<code>noheadline</code>	Removes the headline
<code>smallfootline</code>	Uses a footline half the size of the default footline

3 Features

There are some features allowing configuration and personalization of the MWG theme as well as easier writing the presentation's source.

3.1 Title graphic

The theme is capable of showing a graphic on the title- and other structure frames. The title graphic used by the theme is declared with `\titlegraphic{<graphic>}`, where `<graphic>` represents a command like `\includegraphics` used for loading the title graphic itself.

Note:

The title and structure frames will have a slightly different layout when a title graphic is defined

3.2 Structure frames

When using the MWG theme there will be a separation frame generated when the `\appendix` command is set.

In addition to that, other structure frames may be inserted – this can happen either manually or automatically.

Manual insertion of structure frames

`\partframe` – a frame showing the current part

`\sectionframe` – a frame showing the current section

`\subsectionframe` – a frame showing the current section and subsection

The commands can be used inside as well as outside a frame.

If a command is used *inside* a frame this frame will be used; please note that the elements of the structure frame may cover the other content placed in this frame.

If a command is used *outside* a frame the theme will generate one; this frame won't be calculated into the total number of frames and will have the same frame number as the following frame.

Automatically insertion of structure frames

Commands activating automatically insertion:

part frames	<code>\activatepartframes</code>
section frames	<code>\activatesectionframes</code>
subsection frames	<code>\activatesubsectionframes</code>

Commands deactivating automatically insertion:

part frames	<code>\deactivatepartframes</code>
section frames	<code>\deactivatesectionframes</code>
subsection frames	<code>\deactivatesubsectionframes</code>

It is recommended to deactivate the automatically insertion of part frames before using the `\appendix` command; otherwise there will be two separation frames generated.

4 Appropriate fonts

Many elements of the MWG theme use the `SMALL CAPS` font shape.

This can lead to some unwanted results (*like sans-serif text mixed up with serif small caps*) when the default `TeX` document font, Computer Modern is used.

On the other hand, the theme does not require any font packages, since there may be some problems with engines like `XYTeX` or `LuaTeX`.

Therefore, you should load some font packages on your own.

In following, recommended combinations are listed.

For this documentation, the Charter & Roboto combination is used.

4.1 Font combinations using \TeX packages

Charter & Roboto

supports: \TeX , pdf \TeX , $\sqrt{\text{math}}$

```
\usepackage[charter]{mathdesign}
\usepackage[osf]{XCharter}
\usepackage[osf,scale=.92]{roboto}
\renewcommand{\familydefault}{\sfdefault}
```

Charter & Droid Sans

supports: \TeX , pdf \TeX , $X_{\text{L}}\TeX$, Lua \TeX , $\sqrt{\text{math}}$

doesn't support: SANS-SERIF SMALLCAPS

```
\usepackage[charter]{mathdesign}
\usepackage[scale=.85,defaultssans]{droidsans}
```

Utopia & Source Sans Pro

supports: \TeX , pdf \TeX , $\sqrt{\text{math}}$

doesn't support: SANS-SERIF SMALLCAPS

```
\usepackage[utopia]{mathdesign}
\usepackage[scale=.95]{sourcesanspro}
```

Times & Helvetica

supports: \TeX , pdf \TeX , $X_{\text{L}}\TeX$, Lua \TeX , $\sqrt{\text{math}}$

```
\usepackage[slantedGreek]{mathptmx}
\usepackage[scaled=.92]{helvet}
```

4.2 Font combinations for $X_{\text{L}}\TeX$ and Lua \TeX using fontspec

Please check whether these fonts are installed on your local system before using this font combinations. The fontspec and unicode-math packages both require the document being compiled with $X_{\text{L}}\TeX$ or Lua \TeX .

Cambria, Calibri & Consolas

supports: $X_{\text{L}}\TeX$, Lua \TeX , $\sqrt{\text{math}}$

```
\usepackage{fontspec}
\usepackage{unicode-math}
\setmainfont{Cambria}
\setmathfont{Cambria Math}
\setsansfont[Scale=MatchLowercase]{Calibri}
\setmonofont[Scale=MatchLowercase]{Consolas}
```

Load the fonts with the Numbers=OldStyle option to obtain old style figures

Constantia, Corbel & Consolas

supports: $X_{\text{L}}\TeX$, Lua \TeX

```
\usepackage{fontspec}
\setmainfont{Constantia}
\setsansfont[Scale=MatchLowercase]{Corbel}
\setmonofont[Numbers=OldStyle,Scale=MatchLowercase]{Consolas}
```

List of Figures