

The tcolorbox beamer inner theme

A beamer inner theme to reproduce standard beamer blocks using tcolorboxes

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<https://github.com/samcarter/beamertheme-tcolorbox>

<https://www.ctan.org/pkg/beamertheme-tcolorbox>

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1 Introduction

Over the last decade of answering beamer problems and more recently also being one of the maintainers of the beamer class, I saw countless of requests about beamer blocks. There were users who were looking for sometimes smaller, sometimes larger tweaks to the blocks in their document, for example "How to use the rectangular blocks with sharp corners, but with the shadows from the rounded beamer blocks". Other users encountered various tiny or something bigger problems with the default beamer blocks, like issues with some pdf viewers in which the seams of the underlying colorboxes would become visible.

For all these cases, there is now an alternative to the default beamer blocks: The tcolorbox inner beamer theme will replace the usual beamer mechanism to draw blocks with tcolorboxes. The tcolorboxes will automatically adopt the look and feel (round vs. sharp corners and shadows) as well as the colours of the normal beamer blocks.

The package is included in TeXLive and available from CTAN (<https://www.ctan.org/pkg/beamertheme-tcolorbox>). The development version of this package is located at <https://github.com/samcarter/beamertheme-tcolorbox>. If you have any problems, ideas or other feedback, please make constructive use of the issue tracker.

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2 Usage

The basic usage is fairly simple. One just needs to load the theme via

```
\useinnertheme{tcolorbox}
```

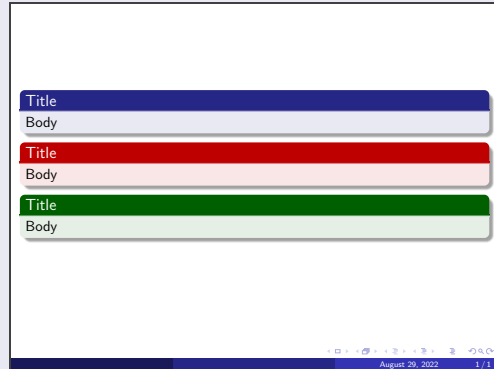
and after that, one can use the normal beamer block environment as usual.

Behind the scenes, this will replace the default mechanism of puzzling together the block from two separate beamer colorboxes, with one tcolorbox.

In this simple configuration, the look and feel of the new blocks will be taken from other themes loaded in the presentation. For example if the Madrid theme is loaded, the resulting tcolorbox will have the usual colours, rounded corners and a shadow:

Example

```
\documentclass{beamer}
\usetheme{Madrid}
\useinnertheme{tcolorbox}
\begin{document}
\begin{frame}
\begin{block}{Title}
  Body
\end{block}
\begin{alertblock}{Title}
  Body
\end{alertblock}
\begin{exampleblock}{Title}
  Body
\end{exampleblock}
\end{frame}
\end{document}
```



3 Options

In addition to automatically adopting settings from the other themes, one can also influence the look and feel via these options:

rounded controls if corners are rounded or sharp (default: `false`)

shadow controls if the block has a shadow (default: `false`)

shaded controls if there is a short colour gradient between the title and the body or if there is a sharp border between the colours (Default: `false`; if rounded corners are activated, it is `true`)

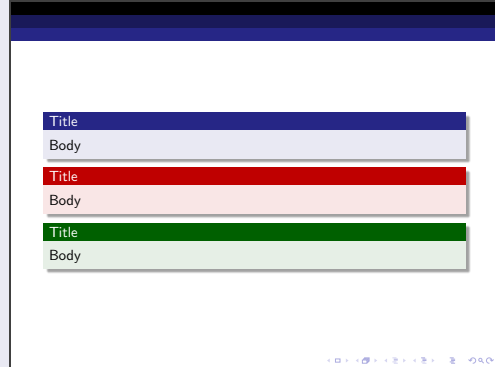
These options can be set to `true` or `false` (calling either option without explicit `true` or `false` will set it to `true`).

```
\useinnertheme[
  rounded
  shadow=false,
  shaded
]{tcolorbox}
```

If one for example likes the Antibes theme, but prefers the blocks to have shadows, they can now easily be added:

Example

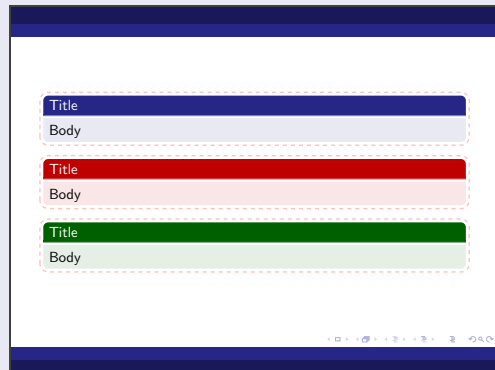
```
\documentclass{beamer}
\usetheme{Antibes}
\useinnertheme[
  shadow
]{tcolorbox}
\begin{document}
\begin{frame}
\begin{block}{Title}
  Body
\end{block}
\begin{alertblock}{Title}
  Body
\end{alertblock}
\begin{exampleblock}{Title}
  Body
\end{exampleblock}
\end{frame}
\end{document}
```



Beyond these two options, the users also has the myriads of options of the tcolorbox package to their disposal, e.g. via `\tcbset{...}`:

Example

```
\documentclass{beamer}
\usetheme{Ilmenau}
\useinnertheme{tcolorbox}
\tcbsetforeverylayer{
  boxrule=3pt,
  borderline={1pt}{0pt}{pink,
    dashed},
}
\begin{document}
\begin{frame}
\begin{block}{Title}
  Body
\end{block}
\begin{alertblock}{Title}
  Body
\end{alertblock}
\begin{exampleblock}{Title}
  Body
\end{exampleblock}
\end{frame}
\end{document}
```



4 Caveats and known issues

- the `tcolorbox` inner theme is not yet optimised for the `inmargin` inner theme, which is e.g. used by the Bergen theme
- at the moment, this theme only applies to blocks. Things like the title page, which directly use `beamercolorboxes`, won't be replaced by `tcolorboxes`