

The moloch Package (v0.6.0)

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Contents

1	Introduction	2
2	Getting Started	3
2.1	Installing from CTAN	3
2.2	Installing from Source	3
2.3	A Minimal Example	3
2.4	Dependencies	4
2.5	Pandoc	4
3	Customization	4
3.1	Package Options	4
3.1.1	Main Theme	4
3.1.2	Inner Theme	5
3.1.3	Outer Theme	5
3.1.4	Color Theme	5
3.1.5	Font Theme	6
3.2	Color Customization	6
3.2.1	Themes	6
3.3	Commands	6
3.3.1	Standout Frames	6
4	Known Issues	7
4.1	Title Formats	7
4.2	Interactions with Other Color Themes	7
4.3	Notes on Second Screen	8
4.4	Standout Frames with Labels	8
4.5	Standout Frames with Pandoc	8
5	License	9
6	Implementation	9
6.1	moloch Parent Theme	9
6.1.1	Package Dependencies	9

*Matthias wrote the original version of this manual for the Metropolis theme, which has since been modified by Johan Larsson.

6.1.2	Options	9
6.1.3	Component Sub-Packages	10
6.1.4	Custom Commands	10
6.1.5	Process Package Options	11
6.2	moloch Inner Theme	11
6.2.1	Package Dependencies	11
6.2.2	Options	11
6.2.3	Title Page	12
6.2.4	Section Page	14
6.2.5	Lists and Floats	16
6.2.6	Footnotes	16
6.2.7	Text and Spacing Settings	17
6.2.8	Standout Frames	17
6.2.9	Process Package Options	18
6.3	moloch outer theme	18
6.3.1	Package dependencies	18
6.3.2	Options	18
6.3.3	Deprecated Options	19
6.3.4	Slide Numbering	19
6.3.5	Head and footline	20
6.3.6	Frametitle	20
6.3.7	Process package options	21
6.4	moloch font theme	21
6.4.1	Package dependencies	22
6.4.2	General font definitions	22
6.4.3	Title format options	22
6.4.4	Process package options	25
6.5	moloch Color Theme	25
6.5.1	Package Dependencies	25
6.5.2	Options	25
6.5.3	Base Colors	25
6.5.4	Base Styles	26
6.5.5	Derived Colors	26
6.5.6	Process Package Options	28

1 Introduction

Beamer is a great way to make presentations with LaTeX, but its theme selection is surprisingly sparse. The stock themes share an aesthetic that can be a little cluttered, while the few distinctive custom themes available are often specialized for a particular corporate or institutional brand.

The goal of **moloch** is to provide a simple, modern Beamer theme suitable for anyone to use. It tries to minimize noise and maximize space for content; the only visual flourish it offers is an (optional) progress bar added to each slide or to the section slides.

moloch's codebase is maintained at <https://github.com/jolars/moloch>. If you have any issues, find mistakes in the manual or want to help make the theme even better, please get in touch there.

`moloch` is a fork of the popular Metropolis theme by Matthias Vogelgesang. The motivation for the fork was to fix some longstanding bugs in Metropolis and also simplify the codebase to make it easier to maintain and less fragile to changes in the underlying Beamer code.

2 Getting Started

2.1 Installing from CTAN

For most users, we recommend installing `moloch` from [CTAN](#). If you keep your \TeX distribution up-to-date, chances are good that `moloch` is already installed. If it is not, you need to update your packages. If your distribution is \TeX Live (or MacTeX on OS X), the following command updates all packages.

```
tlmgr update --all
```

If this results in an error, you may need to run it with administrative privileges:

```
sudo tlmgr update --all
```

MacTeX on OS X also provides a graphical interface for `tlmgr` called \TeX Live Utility.

For any other distribution please refer to its documentation on how to update your packages.

2.2 Installing from Source

If you want to use the development version of `moloch`, you can install it manually. You only need a recent \LaTeX distribution which includes `l3build`. Then simply follow the steps below.

Download the source with a `git clone` of <https://github.com/jolars/moloch>

Install the package by running `l3build install` inside the downloaded directory.

2.3 A Minimal Example

The following code shows a minimal example of a Beamer presentation using `moloch`.

```
\documentclass{beamer}
\usetheme{moloch}
\title{A Minimal Example}
\date{\today}
\author{Johan Larsson}
\institute{Some University}
\begin{document}
  \maketitle
\end{document}
```

```

\section{First Section}
\begin{frame}{First Frame}
  Hello, world!
\end{frame}
\end{document}

```

2.4 Dependencies

moloch depends on the `beamer` class and the following standard packages:

- `tikz`
- `etoolbox`
- `pgfopts`
- `calc`

2.5 Pandoc

To use this theme with [Pandoc](#)-based presentations, you can run the following command

```
$ pandoc -t beamer -V theme:moloch -o output.pdf input.md
```

3 Customization

3.1 Package Options

The theme provides a number of options, which can be set using a key=value interface. The primary way to set options is to provide a comma-separated list of option-value pairs when loading `moloch` in the preamble:

```
\usetheme[option1=value1, option2=value2, ...]{moloch}
```

Options can be changed at any time—even mid-presentation—with the `\molochset` macro.

```
\molochset{option1=newvalue1, option2=newvalue2, ...}
```

The list of options is structured as shown in the following example.

option key *list of possible values* default
 A short description of the option.

3.1.1 Main Theme

titleformat *regular, smallcaps, allsmallcaps, allcaps* regular
 Changes the format of titles, subtitles, section titles, frame titles, and the text on “standout” frames. The available options produce Regular, SMALLCAPS, ALLSMALLCAPS, or ALLCAPS titles. Note that these commands do not affect math and numbers, so may not work as you expect if your titles contain these.

`titleformat plain` *regular, smallcaps, allsmallcaps, allcaps* regular
 Changes the format of “standout” frames (see `titleformat`, above).

3.1.2 Inner Theme

`sectionpage` *none, simple, progressbar* progressbar
 Adds a slide at the start of each section (`simple`) with an optional thin progress bar below the section title (`progressbar`). The `none` option disables the section page.

`subsectionpage` *none, simple, progressbar* none
 Optionally adds a slide at the start of each subsection. If enabled with the `simple` or `progressbar` options, the style of the `section page` will be updated to match the style of the `subsection page`. Note that section slides and subsection slides can appear consecutively if both are enabled; you may want to use this option together with `sectionpage=none` depending on the section structure of your presentation.

`standoutnumbering` *none, hide, show* none
 This option decides whether or not to count standout pages as frames if frame counting. Option `none` (the default) means that the standout frames are not counted. `hide` means that they are counted but that there won’t be any footer showing a frame number. `show` means that they are counted and that the frame number count is shown in the same fashion as for regular frames.

3.1.3 Outer Theme

`numbering` *none, counter, fraction*
This option is deprecated and will be removed in a future version. Please use Beamer’s page number in head/foot template instead. Controls whether the frame number at the bottom right of each slide is omitted (`none`), shown (`counter`) or displayed as a fraction of the total number of frames (`fraction`).

`progressbar` *none, head, frametitle, foot* none
 Optionally adds a progress bar to the top of each frame (`head`), the bottom of each frame (`foot`), or directly below each frame title (`frametitle`).

3.1.4 Color Theme

`block` *transparent, fill* transparent
 Optionally adds a light grey background to block environments like `theorem` and `example`.

`background` *dark, light* light
 Provides the option to have a dark background and light foreground instead of the reverse.

3.1.5 Font Theme

`titleformat title` *regular, smallcaps, allsmallcaps, allcaps* regular
`titleformat subtitle` Individually controls the format of titles, subtitles, section titles, and frame titles
`titleformat section` (see `titleformat`, above).
`titleformat frame`

3.2 Color Customization

The included `moloch` color theme is used by default, but its colors can be easily changed to suit your tastes. All of the theme's styles are defined in terms of three beamer colors:

- `normal text` (dark fg, light bg)
- `alerted text` (colored fg, should be visible against dark or light)
- `example text` (colored fg, should be visible against dark or light)

An easy way to customize the theme is to redefine these colors using

```
\setbeamercolor{ ... }{ fg= ... , bg= ... }
```

in your preamble. For greater customization, you can redefine any of the other stock beamer colors. In addition to the stock colors the theme defines a number of `moloch` specific colors, which can also be redefined to your liking.

```
\setbeamercolor{progress bar}{ ... }  
\setbeamercolor{title separator}{ ... }  
\setbeamercolor{progress bar in head/foot}{ ... }  
\setbeamercolor{progress bar in section page}{ ... }
```

3.2.1 Themes

For low-light situations `moloch` it might be helpful to use the `moloch-highcontrast` color theme. It is enabled like any other color theme:

```
\usecolortheme{moloch-highcontrast}
```

There is also a theme based on the <https://github.com/chriskempson/tomorrow-theme>, which you can enable like this:

```
\usecolortheme{moloch-tomorrow}
```

3.3 Commands

3.3.1 Standout Frames

The `moloch` inner theme offers a custom frame format with large, centered text and an inverted background—perfect for focusing attention on single sentence or image. To use it, add the key `standout` to the frame:

```
\begin{frame}[standout]
```

```
    Thank you!  
\end{frame}
```

4 Known Issues

4.1 Title Formats

Be aware that not every font supports small caps, so the `smallcaps` or `allsmallcaps` options may not work for all fonts. In particular, the Computer Modern sans-serif typeface, which is used by default when `moloch` is compiled with pdfL^AT_EX, does not have a small-caps variant.

Note that title format options `allsmallcaps` and `allcaps` do not affect the sizes of numerals, punctuation, and math symbol, and are probably best avoided if your titles contain these characters.

4.2 Interactions with Other Color Themes

`moloch` can be used along with any other Beamer color theme, such as `crane` or `seahorse`. If you wish to do this, it is usually best to include the `moloch` subpackages individually so the `moloch` color theme is never loaded. This will prevent conflicts between the `moloch` color theme and your preferred theme.

For example, overriding the color theme as follows may not work as expected because `\usetheme{moloch}` loads the `moloch` color theme, which defines a relationship between the frametitle background and the primary palette of the theme. Since `seahorse` assumes a different relationship between its palettes, the result is a grey, rather than periwinkle, frametitle background.

```
\usetheme{moloch}  
\usecolortheme{seahorse}
```

The correct colors are chosen if the `moloch` outer, inner, and font themes are loaded separately:

```
\useoutertheme{moloch}  
\useinnertheme{moloch}  
\usefonttheme{moloch}  
\usecolortheme{seahorse}    % or your preferred color  
    theme
```

Please note that `moloch` may not use all the colors defined in your favourite Beamer color theme. In particular, `moloch` does not set a background color for the title; this will cause issues when using color themes like `whale` which set a white foreground for the title.

4.3 Notes on Second Screen

If you use the `[show notes on second screen]` option built in to Beamer and compile with $\text{X}_{\text{L}}\text{A}_{\text{T}}\text{E}_{\text{X}}$, text on slides following the first section slide may be rendered in white instead of the regular colour. This is due to a [bug](#) in Beamer or $\text{X}_{\text{L}}\text{A}_{\text{T}}\text{E}_{\text{X}}$ itself. You can work around it either by compiling with $\text{L}_{\text{u}}\text{A}_{\text{T}}\text{E}_{\text{X}}$ or by adding the following code to your preamble to reset the text color on each slide.

```
\makeatletter
\def\beamer@framenotesbegin{% at beginning of slide
    \usebeamercolor[fg]{normal text}
    \gdef\beamer@noteitems{}%
    \gdef\beamer@notes{}%
}
\makeatother
```

4.4 Standout Frames with Labels

Because the `standout` frame option creates a group to restrict the colour change to a single slide, labels defined after calling `standout` will stay local to the group. In other words, the following may result in a “label undefined” error.

```
\begin{frame}[standout, label=conclusion]{Conclusion}
    Awesome slide
\end{frame}
```

To fix this problem, change the order of the keys in the frame.

```
\begin{frame}[label=conclusion, standout]{Conclusion}
    Awesome slide
\end{frame}
```

This error can be unwittingly triggered if you export your slides from Emacs Org mode, which automatically adds labels after frame options. Alex Branham [offers](#) the following solution for Org mode users, using `org-set-property`.

```
* Start of a frame
:PROPERTIES:
:BEAMER_opt: label=conclusion,standout
:END:
```

4.5 Standout Frames with Pandoc

With Pandoc versions prior to 1.17.2 it was not possible to create standout frames because Pandoc only supported a specific list of frame attributes thus ignoring additional attributes such as `{.standout}`.

5 License

moloch is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](#). This means that if you change the theme and re-distribute it, you must retain the copyright notice header and license it under the same CC-BY-SA license. This does not affect any presentations that you create with the theme.

6 Implementation

6.1 moloch Parent Theme

The primary job of this package is to load the component sub-packages of the moloch theme and route the theme options accordingly. It also provides some custom commands and environments for the user.

6.1.1 Package Dependencies

```
1 \RequirePackage{pgfopts}
```

6.1.2 Options

Most options are passed off to the component sub-packages.

```
2 \pgfkeys{/moloch/.cd,
3   .search also={
4     /moloch/inner,
5     /moloch/outer,
6     /moloch/color,
7     /moloch/font,
8   }
9 }
```

`titleformat plain` Controls the formatting of the text on standout “plain” frames.

```
10 \pgfkeys{
11   /moloch/titleformat plain/.cd,
12   .is choice,
13   regular/.code={%
14     \let\moloch@plaintitleformat\@empty%
15     \setbeamerfont{standout}{shape=\normalfont}%
16   },
17   smallcaps/.code={%
18     \let\moloch@plaintitleformat\@empty%
19     \setbeamerfont{standout}{shape=\scshape}%
20   },
21   allsmallcaps/.code={%
22     \let\moloch@plaintitleformat\MakeLowercase%
23     \setbeamerfont{standout}{shape=\scshape}%
24   },
25   allcaps/.code={%
26     \let\moloch@plaintitleformat\MakeUppercase%
27     \setbeamerfont{standout}{shape=\normalfont}%
28   },
29 }
```

`titleformat` Sets a standard format for titles, subtitles, section titles, frame titles, and the text on standout “plain” frames.

```
30 \pgfkeys{
31   /moloch/titleformat/.code=\pgfkeysalso{
32     font/titleformat title=#1,
33     font/titleformat subtitle=#1,
34     font/titleformat section=#1,
35     font/titleformat frame=#1,
36     titleformat plain=#1,
37   }
38 }
```

Set default values for options.

```
39 \newcommand{\moloch@setdefaults}{
40   \pgfkeys{/moloch/.cd,
41     titleformat plain=regular,
42   }
43 }
```

To avoid generating externalized figures of the progressbar we have to disable them with “tikzexternalenable” and “tikzexternaldisable”. However, if the “external” library is not loaded we would get undefined control sequence problems, hence we define them as no-ops if they are not defined yet. We do the same for the “mmzUnmemoizable” command from the memoize package, in order to avoid memoization of the progress bars.

```
44 \providecommand{\tikzexternalenable}{}
45 \providecommand{\tikzexternaldisable}{}
46 \providecommand{\mmzUnmemoizable}{}
```

6.1.3 Component Sub-Packages

Having processed the options, we can now load the component sub-packages of the theme.

```
47 \useinnertheme{moloch}
48 \useoutertheme{moloch}
49 \usecolortheme{moloch}
50 \usefonttheme{moloch}
```

6.1.4 Custom Commands

The parent theme defines custom commands as their proper usage may depend on multiple sub-packages.

`\molochset` Allows the user to change options midway through a presentation.

```
51 \newcommand{\molochset}[1]{\pgfkeys{/moloch/.cd,#1}}
```

`\mreducelistspacing`

```
52 \newcommand{\mreducelistspacing}{\vspace{-\topsep}}
```

6.1.5 Process Package Options

```
53 \moloch@setdefaults
54 \ProcessPgfOptions{/moloch}
```

6.2 moloch Inner Theme

A `beamer` inner theme dictates the style of the frame elements traditionally set in the “body” of each slide. These include:

- title, part, and section pages;
- itemize, enumerate, and description environments;
- block environments including theorems and proofs;
- figures and tables; and
- footnotes and plain text.

6.2.1 Package Dependencies

```
55 \RequirePackage{keyval}
56 \RequirePackage{calc}
57 \RequirePackage{pgfopts}
58 \RequirePackage{tikz}
```

6.2.2 Options

`sectionpage` Optionally add a slide marking the beginning of each section.

```
59 \pgfkeys{
60   /moloch/inner/sectionpage/.cd,
61   .is choice,
62   none/.code=\moloch@disablesectionpage,
63   simple/.code={%
64     \moloch@enablesectionpage%
65     \setbeamertemplate{section page}[simple]%
66   },
67   progressbar/.code={%
68     \moloch@enablesectionpage%
69     \setbeamertemplate{section page}[progressbar]%
70   },
71 }
```

`subsectionpage` Optionally add a slide marking the beginning of each subsection.

```
72 \pgfkeys{
73   /moloch/inner/subsectionpage/.cd,
74   .is choice,
75   none/.code=\moloch@disablesubsectionpage,
76   simple/.code={%
77     \moloch@enablesubsectionpage%
78     \setbeamertemplate{section page}[simple]%
79   },
80   progressbar/.code={%
81     \moloch@enablesubsectionpage%
82     \setbeamertemplate{section page}[progressbar]%
83   },
84 }
```

`standoutnumbering` Whether or not to number standout pages. Option `none` means that standout pages are not numbered (do not count as frames). `hide` means that they do count as frames, but that the footer with the number is not shown. Option `show` means that they both count as frames and that the footer with a frame count is shown.

```

85 \providebool{moloch@enableStandoutFooter}
86 \providebool{moloch@enableStandoutNumbering}
87 \pgfkeys{
88   /moloch/inner/standoutnumbering/.cd,
89   .is choice,
90   none/.code={
91     \boolfalse{moloch@enableStandoutNumbering}
92     \boolfalse{moloch@enableStandoutFooter}
93   },
94   show/.code={
95     \booltrue{moloch@enableStandoutNumbering}
96     \booltrue{moloch@enableStandoutFooter}
97   },
98   hide/.code={
99     \booltrue{moloch@enableStandoutNumbering}
100    \boolfalse{moloch@enableStandoutFooter}
101  }
102 }

```

`\moloch@inner@setdefaults` Set default values for inner theme options.

```

103 \newcommand{\moloch@inner@setdefaults}{
104   \pgfkeys{/moloch/inner/.cd,
105     sectionpage=progressbar,
106     subsectionpage=none,
107     standoutnumbering=none
108   }
109 }

```

6.2.3 Title Page

`title page` Template for the title page. Each element is only typeset if it is defined by the user. If `\subtitle` is empty, for example, it won't leave a blank space on the title slide.

```

110 \setbeamertemplate{title page}{
111   \begin{minipage}[c][\textheight]{\textwidth}
112     \null%
113     \vspace{0pt plus 1.618fil}%
114     \vfil%
115     \ifx\inserttitlegraphic@empty\else\usebeamertemplate*{title graphic}\fi
116     \ifx\inserttitle@empty\else\usebeamertemplate*{title}\fi
117     \ifx\insertsubtitle@empty\else\usebeamertemplate*{subtitle}\fi
118     \usebeamertemplate*{title separator}
119     \expandafter\ifblank\expandafter{\beamer@andstripped}{-}{%
120       \usebeamertemplate*{author}%
121     }
122     \ifx\insertinstitute@empty\else\usebeamertemplate*{institute}\fi
123     \ifx\insertdate@empty\else\usebeamertemplate*{date}\fi
124     \vspace{0pt plus 1fil}%

```

```

125   \null
126   \end{minipage}%
127 }

```

Normal people should use `\maketitle` or `\titlepage` instead of using the `title page` beamer template directly. Beamer already defines these macros, but we patch them here to make the title page `[plain]` by default, remove `\@thanks`, and ensure the title frame number doesn't count.

`\maketitle` Inserts the title frame, or causes the current frame to use the `title page` template.

```

\titlepage
128 \def\maketitle{%
129   \ifbeamer@inframe
130     \titlepage
131   \else
132     \frame[plain,noframenumbering]{\titlepage}
133   \fi
134 }
135 \def\titlepage{%
136   \usebeamertemplate{title page}
137 }

```

`title graphic` Set the title graphic in a zero-height box, so it doesn't change the position of other elements.

```

138 \setbeamertemplate{title graphic}{
139   \inserttitlegraphic%
140   \par%
141   \vspace*{1em}
142 }

```

`title` Set the title on the title page.

```

143 \setbeamertemplate{title}{
144   \raggedright%
145   \moloche@titleformat{\inserttitle}%
146   \par%
147   \vspace*{0.2em}
148 }

```

`subtitle` Set the subtitle on the title page.

```

149 \setbeamertemplate{subtitle}{
150   \vspace*{0.1em}
151   \raggedright%
152   \moloche@subtitleformat{\insertsubtitle}%
153   \par%
154   \vspace*{0.2em}
155 }

```

`title separator` Template to set the title graphic in a zero-height box. (It won't change the position of other elements.)

```

156 \newlength{\moloche@titleseparator@linewidth}
157 \setlength{\moloche@titleseparator@linewidth}{0.4pt}
158 \setbeamertemplate{title separator}{
159   \tikzexternaldisable%
160   \begin{tikzpicture}
161     \mmzUnmemoizable%
162     \fill[fg] (0,0) rectangle (\textwidth, \moloche@titleseparator@linewidth);
163   \end{tikzpicture}%
164   \tikzexternalenable%
165   \par%
166   \vspace*{0.8em}
167 }

```

author Set the author on the title page.

```

168 \setbeamertemplate{author}{
169   \raggedright%
170   \insertauthor%
171   \par%
172   \vspace*{0.5em}
173 }

```

institute Set the institute on the title page.

```

174 \setbeamertemplate{institute}{
175   \insertinstitute%
176   \par%
177   \vspace*{1em}
178 }

```

date Set the date on the title page.

```

179 \setbeamertemplate{date}{
180   \insertdate%
181   \par%
182 }

```

6.2.4 Section Page

section Page Template for the section title slide at the beginning of each section.

```

183 \defbeamertemplate{section page}{simple}{
184   \begin{center}
185     \usebeamerfont[fg]{section title}
186     \usebeamerfont{section title}
187     \moloche@sectiontitleformat{\insertsectionhead}\par
188     \usebeamerfont[fg]{subsection title}%
189     \usebeamerfont{subsection title}%
190     \strut%
191     \ifx\insertsubsectionhead\@empty\else%
192       \insertsubsectionhead%
193     \fi
194   \end{center}
195   \vspace{\baselineskip - 1ex + 0.4pt}

```

```

196 }
197 \defbeamertemplate{section page}{progressbar}{
198   \centering
199   \begin{minipage}{0.7875\linewidth}
200     \raggedright
201     \usebeamercolor[fg]{section title}
202     \usebeamerfont{section title}
203     \moloch@sectiontitleformat{\insertsectionhead}\[-0.5\baselineskip]
204     \usebeamertemplate*{progress bar in section page}
205     \par
206     \usebeamercolor[fg]{subsection title}%
207     \usebeamerfont{subsection title}%
208     \strut%
209     \ifx\insertsubsectionhead\@empty\else%
210       \insertsubsectionhead%
211     \fi
212   \end{minipage}
213   \par
214 }
215 \newcommand{\moloch@disablesectionpage}{
216   \AtBeginSection{
217     % intentionally empty
218   }
219 }
220 \newcommand{\moloch@enablesectionpage}{
221   \AtBeginSection{
222     \ifbeamer@inframe
223       \sectionpage
224     \else
225       \frame[plain,c,noframenumbering]{\sectionpage}
226     \fi
227   }
228 }

```

subsection page Template for the subsection title slide that can optionally be added to at the beginning of each subsection.

```

229 \setbeamertemplate{subsection page}{%
230   \usebeamertemplate*{section page}
231 }
232 \newcommand{\moloch@disablesubsectionpage}{
233   \AtBeginSubsection{
234     % intentionally empty
235   }
236 }
237 \newcommand{\moloch@enablesubsectionpage}{
238   \AtBeginSubsection{
239     \ifbeamer@inframe
240       \subsectionpage
241     \else
242       \frame[plain,c,noframenumbering]{\subsectionpage}
243     \fi
244   }
245 }

```

progress bar in section page Template for the progress bar displayed by default on the section page. This code is duplicated in large part in the outer theme's template `progress bar in head/foot`.

```

246 \newlength{\moloche@progressonsectionpage}
247 \newlength{\moloche@progressonsectionpage@linewidth}
248 \setlength{\moloche@progressonsectionpage@linewidth}{0.4pt}
249 \setbeamertemplate{progress bar in section page}{
250   \pgfmathsetlength{\moloche@progressonsectionpage}{
251     \textwidth * min(1,\insertframenumber/\inserttotalframenumber)
252   }%
253   \tikzexternaldisable%
254   \begin{tikzpicture}
255     \mmzUnmemoizable%
256     \fill[bg]
257       (0,0)
258       rectangle
259         (\textwidth, \moloche@progressonsectionpage@linewidth);
260     \fill[fg]
261       (0,0)
262       rectangle
263         (\moloche@progressonsectionpage,
264         \moloche@progressonsectionpage@linewidth);
265   \end{tikzpicture}%
266   \tikzexternalenable%
267 }

```

The code above assumes that `\insertframenumber` is less than or equal to `\inserttotalframenumber`. However, this is not true on the first compile; in the absence of an `.aux` file, `\inserttotalframenumber` defaults to 1. This behaviour could cause fatal errors for long presentations, as `\moloche@progressonsectionpage` would exceed \TeX 's maximum length (16383.99999pt, roughly 5.75 metres or 18.9 feet). To avoid this, we increase the default value for `\inserttotalframenumber`; presentations with over 4000 slides will still break on first compile, but users in that situation likely have deeper problems to solve.

```

268 \def\inserttotalframenumber{100}

```

6.2.5 Lists and Floats

```

269 \setbeamertemplate{itemize item}{\(\bullet\)}
270 \setbeamertemplate{itemize subitem}{\(\circ\)}
271 \setbeamertemplate{itemize subsubitem}{\textbullet}
272 \setbeamertemplate{caption label separator}{: }
273 \setbeamertemplate{caption}[numbered]

```

6.2.6 Footnotes

```

274 \setbeamertemplate{footnote}{%
275   \parindent 0em\noindent\raggedright \usebeamercolor{footnote}\hbox to
276   0.8em{\hfil\insertfootnotemark}\insertfootnotetext%%
277   \par%
278 }

```


6.2.7 Text and Spacing Settings

By default, Beamer frames offer the `c` option to *almost* vertically center the text, but the placement is a little too high. To fix this, we redefine the `c` option to equalize `\beamer@frametopskip` and `\beamer@framebottomskip`. This solution was suggested by Enrico Gregorio in an answer to [this Stack Exchange question](#).

```
279 \define@key{beamerframe}{c}[true]{% centered
280   \beamer@frametopskip=0pt plus 1fil\relax%
281   \beamer@framebottomskip=0pt plus 1fil\relax%
282   \beamer@frametopskipautobreak=0pt plus .4\paperheight\relax%
283   \beamer@framebottomskipautobreak=0pt plus .6\paperheight\relax%
284   \def\beamer@initfirstlineunskip{}}%
285 }
```

6.2.8 Standout Frames

`moloch` offers a custom frame format with large, centered text and an inverted background. To use it, add the key `standout` to the frame:

```
\begin{frame}[standout] ... \end{frame}.
```

`standout` Optional arguments to Beamer's frames are implemented using `\define@key` from the `keyval` package, which will execute code when the defined option is called. For the `standout` option, we begin a group, change the colors and set frame options.

```
286 \providebool{moloch@standout}
287 \define@key{beamerframe}{standout}[true]{%
288   \booltrue{moloch@standout}
289   \begingroup
290   \setkeys{beamerframe}{c}
291   \ifbool{moloch@enableStandoutNumbering}{}{%
292     \setkeys{beamerframe}{noframenumbering}}
293   \ifbeamercolorempty[bg]{palette primary}{
294     \setbeamercolor{background canvas}{
295       use=palette primary,
296       bg=-palette primary.fg
297     }
298   }{
299     \setbeamercolor{background canvas}{
300       use=palette primary,
301       bg=palette primary.bg
302     }
303   }
304   \setbeamercolor{local structure}{
305     fg=palette primary.fg
306   }
307   \usebeamercolor[fg]{palette primary}
308   \setbeamercolor{page number in head/footer}{
309     use=palette primary,
310     fg=palette primary.fg
311   }
312   \ifbool{moloch@enableStandoutFooter}{}{\setbeamertemplate{footline}{} }
313 }
```

Then we just have to close the group after the standout slide is finished in order to restore the colours and fonts for the rest of the presentation. Unfortunately, we cannot use or this (see <http://tex.stackexchange.com/questions/226319/>). Instead, we prepend the `\endgroup` to `\beamer@reseteecodes`, which is run exactly once at the end of each slide.

```
314 \pretocmd{\beamer@reseteecodes}{%
315   \ifbool{moloch@standout}{
316     \endgroup
317     \boolfalse{moloch@standout}
318   }{}
319 }{}{}
```

We set the fonts and the alignment on the inner content, in such a way that the speaker's note layout isn't affected by the custom formatting.

```
320 \AtBeginEnvironment{beamer@frameslide}{
321   \ifbool{moloch@standout}{
322     \centering
323     \usebeamerfont{standout}
324   }{}
325 }
```

6.2.9 Process Package Options

```
326 \moloch@inner@setdefaults
327 \ProcessPgfPackageOptions{/moloch/inner}
```

6.3 moloch outer theme

A `beamer` outer theme dictates the style of the frame elements traditionally set outside the body of each slide: the head, footline, and frame title.

6.3.1 Package dependencies

```
328 \RequirePackage{calc}
329 \RequirePackage{pgfopts}
```

6.3.2 Options

`progressbar` Adds a progress bar to the top, bottom, or frametitle of each slide.

```
330 \pgfkeys{
331   /moloch/outer/progressbar/.cd,
332   .is choice,
333   none/.code={%
334     \setbeamertemplate{headline}[plain]
335     \setbeamertemplate{frametitle}[plain]
336     \setbeamertemplate{footline}[plain]
337   },
338   head/.code={\pgfkeys{/moloch/outer/progressbar=none}
339     \addtobeamertemplate{headline}{}{%
340       \usebeamertemplate*{progress bar in head/foot}
341     }
342   },
```

```

343 frametitle/.code={\pgfkeys{/moloch/outer/progressbar=none}
344   \addtoamertemplate{frametitle}{}{%
345     \usebeamertemplate*{progress bar in head/foot}
346   }
347 },
348 foot/.code={\pgfkeys{/moloch/outer/progressbar=none}
349   \addtoamertemplate{footline}{}{%
350     \usebeamertemplate*{progress bar in head/foot}%
351   }
352 },
353 }

```

`\moloch@outer@setdefaults` Sets default values for outer theme options.

```

354 \newcommand{\moloch@outer@setdefaults}{
355   \pgfkeys{/moloch/outer/.cd,
356     progressbar=none,
357   }
358 }

```

6.3.3 Deprecated Options

These options are deprecated and will be removed in a future version.

`numbering` Adds slide numbers to the bottom right of each slide.

```

359 \pgfkeys{
360   /moloch/outer/numbering/.cd,
361   .is choice,
362   none/.code={%
363     \PackageWarning{moloch}{The ‘‘numbering’’ option is deprecated.
364       Use beamer’s ‘‘page number in head/foot’’ template instead}%
365     \setbeamertemplate{page number in head/foot}[default]
366   },
367   counter/.code={%
368     \PackageWarning{moloch}{The ‘‘numbering’’ option is deprecated.
369       Use beamer’s ‘‘page number in head/foot’’ template instead}%
370     \setbeamertemplate{page number in head/foot}[framenummer]
371   },
372   fraction/.code={%
373     \PackageWarning{moloch}{The ‘‘numbering’’ option is deprecated.
374       Use beamer’s ‘‘page number in head/foot’’ template instead}%
375     \setbeamertemplate{page number in head/foot}[totalframenummer]
376   },
377 }

```

6.3.4 Slide Numbering

Moloch defaults to numbering frames. To modify this, simply copy this line to your preamble and replace `framenummer`.

```

378 \setbeamertemplate{page number in head/foot}[framenummer]

```

6.3.5 Head and footline

All good `beamer` presentations should already remove the navigation symbols, but `moloch` removes them automatically (just in case).

```
379 \setbeamertemplate{navigation symbols}{}
```

`headline` Templates for the head- and footline at the top and bottom of each frame.

`footline`

```
380 \defbeamertemplate{headline}{plain}{}
381 \defbeamertemplate{footline}{plain}{%
382   \begin{beamercolorbox}[
383     leftskip=4pt,%
384     rightskip=5pt,%
385     wd=\textwidth,%
386   ]{footline}%
387   \usebeamerfont[fg]{page number in head/footer}%
388   \usebeamerfont{page number in head/footer}%
389   \usebeamertemplate*{frame footer}%
390   \hfill%
391   \usebeamertemplate*{page number in head/footer}\vskip4pt%
392 \end{beamercolorbox}%
393 }
```

6.3.6 Frametitle

`frametitle` Templates for the frame title, which is optionally underlined with a progress bar.

```
394 \newlength{\moloch@frametitle@padding}
395 \setlength{\moloch@frametitle@padding}{2.2ex}
396 \newcommand{\moloch@frametitlestrut@start}{%
397   \rule{0pt}{\moloch@frametitle@padding +%
398     \totalheightof{%
399       \ifcsdef{moloch@frametitleformat}{\moloch@frametitleformat X}{X}%
400     }%
401   }%
402 }
403
404 \newcommand{\moloch@frametitlestrut@end}{%
405   \vphantom{%
406     \rule[-\moloch@frametitle@padding]{0pt}{\moloch@frametitle@padding}%
407   }
408 }
409 \defbeamertemplate{frametitle}{plain}{%
410   \nointerlineskip%
411   \begin{beamercolorbox}[%
412     wd=\paperwidth,%
413     leftskip=1.6ex,%
414     rightskip=\the\glueexpr 1.6ex plus 1fil\relax,%
415   ]{frametitle}%
416   \usebeamerfont{frametitle}%
417   \moloch@frametitlestrut@start%
418   \moloch@frametitleformat{\insertframetitle}%
419   {%
420     \ifx\insertframesubtitle\@empty%
```

```

421     \else%
422     {%
423     \par%
424     \usebeamerfont{framesubtitle}%
425     \vspace{-0.8ex}%
426     \usebeamercolor[fg]{framesubtitle}%
427     \insertframesubtitle%
428     }%
429     \fi
430 }%
431 \moloche@frametitlestrut@end%
432 \end{beamercolorbox}%
433 }
434 \setbeamertemplate{frametitle continuation}{%
435 \romannumeral\insertcontinuationcount}

```

`progress bar in head/foot` Template for the progress bar optionally displayed below the frame title on each page. Much of this code is duplicated in the inner theme's template `progress bar in section page`.

```

436 \newlength{\moloche@progressinheadfoot}
437 \newlength{\moloche@progressinheadfoot@linewidth}
438 \setlength{\moloche@progressinheadfoot@linewidth}{0.4pt}
439 \setbeamertemplate{progress bar in head/foot}{
440 \nointerlineskip%
441 \pgfmathsetlength{\moloche@progressinheadfoot}{%
442 \paperwidth * min(1,\insertframenummer/\inserttotalframenummer)%
443 }%
444 \begin{beamercolorbox}[wd=\paperwidth]{progress bar in head/foot}
445 \tikzexternaldisable%
446 \begin{tikzpicture}
447 \mmzUnmemoizable%
448 \fill[bg]
449 (0,0)
450 rectangle
451 (\paperwidth, \moloche@progressinheadfoot@linewidth);
452 \fill[fg]
453 (0,0)
454 rectangle
455 (\moloche@progressinheadfoot, \moloche@progressinheadfoot@linewidth);
456 \end{tikzpicture}
457 \tikzexternalenable%
458 \end{beamercolorbox}
459 }

```

6.3.7 Process package options

```

460 \moloche@outer@setdefaults
461 \ProcessPgfPackageOptions{/moloche/outer}

```

6.4 moloch font theme

A beamer font theme sets the style of the font used in the document.

6.4.1 Package dependencies

```
462 \RequirePackage{etoolbox}
463 \RequirePackage{pgfopts}
```

6.4.2 General font definitions

```
464 \setbeamerfont{title}{size=\Large, series=\bfseries}
465 \setbeamerfont{author}{size=\small}
466 \setbeamerfont{date}{size=\small}
467 \setbeamerfont{section title}{size=\Large, series=\bfseries}
468 \setbeamerfont{block title}{size=\normalsize, series=\bfseries}
469 \setbeamerfont{block title alerted}{size=\normalsize, series=\bfseries}
470 \setbeamerfont*{subtitle}{size=\large}
471 \setbeamerfont{frametitle}{size=\large, series=\bfseries}
472 \setbeamerfont{framesubtitle}{size=\small}
473 \setbeamerfont{caption}{size=\small}
474 \setbeamerfont{caption name}{series=\bfseries}
475 \setbeamerfont{description item}{series=\bfseries}
476 \setbeamerfont{standout}{size=\Large, series=\bfseries}
```

6.4.3 Title format options

`titleformat title` Controls the format of the title.

```
477 \pgfkeys{
478   /moloch/font/titleformat title/.cd,
479   .is choice,
480   regular/.code={%
481     \let\moloch@titleformat\@empty%
482     \setbeamerfont{title}{shape=\normalfont}%
483   },
484   smallcaps/.code={%
485     \let\moloch@titleformat\@empty%
486     \setbeamerfont{title}{shape=\scshape}%
487   },
488   allsmallcaps/.code={%
489     \let\moloch@titleformat\lowercase%
490     \setbeamerfont{title}{shape=\scshape}%
491     \PackageNote{beamerthememoloch}{%
492       Be aware that titleformat title=allsmallcaps can
493       lead to problems}
494   },
495   allcaps/.code={%
496     \let\moloch@titleformat\uppercase%
497     \setbeamerfont{title}{shape=\normalfont}
498     \PackageNote{beamerthememoloch}{%
499       Be aware that titleformat title=allcaps can lead to problems%
500     }
501   },
502 }
```

`titleformat subtitle` Control the format of the subtitle.

```
503 \pgfkeys{
504   /moloch/font/titleformat subtitle/.cd,
```

```

505 .is choice,
506 regular/.code={%
507   \let\moloch@subtitleformat\@empty%
508   \setbeamerfont{subtitle}{shape=\normalfont}%
509 },
510 smallcaps/.code={%
511   \let\moloch@subtitleformat\@empty%
512   \setbeamerfont{subtitle}{shape=\scshape}%
513 },
514 allsmallcaps/.code={%
515   \let\moloch@subtitleformat\MakeLowercase%
516   \setbeamerfont{subtitle}{shape=\scshape}%
517   \PackageNote{beamerthememoloch}{%
518     Be aware that titleformat subtitle=allsmallcaps
519     can lead to problems}
520 },
521 allcaps/.code={%
522   \let\moloch@subtitleformat\MakeUppercase%
523   \setbeamerfont{subtitle}{shape=\normalfont}%
524   \PackageNote{beamerthememoloch}{%
525     Be aware that titleformat subtitle=allcaps can
526     lead to problems}
527 },
528 }

```

`titleformat section` Controls the format of the section title.

```

529 \pgfkeys{
530 /moloch/font/titleformat section/.cd,
531 .is choice,
532 regular/.code={%
533   \let\moloch@sectiontitleformat\@empty%
534   \setbeamerfont{section title}{shape=\normalfont}%
535 },
536 smallcaps/.code={%
537   \let\moloch@sectiontitleformat\@empty%
538   \setbeamerfont{section title}{shape=\scshape}%
539 },
540 allsmallcaps/.code={%
541   \let\moloch@sectiontitleformat\MakeLowercase%
542   \setbeamerfont{section title}{shape=\scshape}%
543   \PackageNote{beamerthememoloch}{%
544     Be aware that titleformat section=allsmallcaps
545     can lead to problems}
546 },
547 allcaps/.code={%
548   \let\moloch@sectiontitleformat\MakeUppercase%
549   \setbeamerfont{section title}{shape=\normalfont}%
550   \PackageNote{beamerthememoloch}{%
551     Be aware that titleformat section=allcaps
552     can lead to problems}
553 },
554 }

```

`frametitleformat` Control the format of the frame title.

```
555 \pgfkeys{
556   /moloch/font/titleformat frame/.cd,
557   .is choice,
558   regular/.code={%
559     \let\moloch@frametitleformat\@empty%
560     \setbeamerfont{frametitle}{shape=\normalfont}%
561   },
562   smallcaps/.code={%
563     \let\moloch@frametitleformat\@empty%
564     \setbeamerfont{frametitle}{shape=\scshape}%
565   },
566   allsmallcaps/.code={%
567     \let\moloch@frametitleformat\MakeLowercase%
568     \setbeamerfont{frametitle}{shape=\scshape}%
569     \PackageNote{beamerthememoloch}{%
570       Be aware that titleformat frame=allsmallcaps
571       can lead to problems}
572   },
573   allcaps/.code={%
574     \let\moloch@frametitleformat\MakeUppercase%
575     \setbeamerfont{frametitle}{shape=\normalfont}
576     \PackageNote{beamerthememoloch}{%
577       Be aware that titleformat frame=allcaps can lead to problems%
578     }
579   },
580 }
```

`titleformat aliases` Allows `titleformat title` et al. to be used in the `\usetheme` declaration, where \LaTeX automatically removes all spaces.

```
581 \pgfkeys{
582   /moloch/font/.cd,
583   titleformattitle/.code=\pgfkeysalso{titleformat title=#1},
584   titleformatsubtitle/.code=\pgfkeysalso{titleformat subtitle=#1},
585   titleformatsection/.code=\pgfkeysalso{titleformat section=#1},
586   titleformatframe/.code=\pgfkeysalso{titleformat frame=#1},
587 }
```

`\moloch@font@setdefaults` Sets default values for font theme options.

```
588 \newcommand{\moloch@font@setdefaults}{
589   \pgfkeys{/moloch/font/.cd,
590     titleformat title=regular,
591     titleformat subtitle=regular,
592     titleformat section=regular,
593     titleformat frame=regular,
594   }
595 }
```

We first define hooks to change the case format of the titles.

```
596 \def\moloch@titleformat#1{#1}
```



```

597 \def\moloch@subtitleformat#1{#1}
598 \def\moloch@sectiontitleformat#1{#1}
599 \def\moloch@frametitleformat#1{#1}

```

To make the uppercase and lowercase macros work in the title, subtitle, etc., we have to patch the appropriate `beamer` commands that set their values. This solution was suggested by Enrico Gregorio in an answer to [this StackExchange question](#).

6.4.4 Process package options

```

600 \moloch@font@setdefaults
601 \ProcessPgfPackageOptions{/moloch/font}

```

6.5 moloch Color Theme

6.5.1 Package Dependencies

```

602 \RequirePackage{pgfopts}

```

6.5.2 Options

`block` Optionally adds a light grey background to block environments like `theorem` and `example`.

```

603 \pgfkeys{
604   /moloch/color/block/.cd,
605   .is choice,
606   transparent/.code=\moloch@block@transparent,
607   fill/.code=\moloch@block@fill,
608 }

```

`colors` Provides the option to have a dark background and light foreground instead of the reverse.

```

609 \pgfkeys{
610   /moloch/color/background/.cd,
611   .is choice,
612   dark/.code=\moloch@colors@dark,
613   light/.code=\moloch@colors@light,
614 }

```

`\moloch@color@setdefaults` Sets default values for color theme options.

```

615 \newcommand{\moloch@color@setdefaults}{
616   \pgfkeys{/moloch/color/.cd,
617     background=light,
618   }
619 }

```

6.5.3 Base Colors

```

620 \definecolor{mDarkBrown}{HTML}{604c38}
621 \definecolor{mDarkTeal}{HTML}{23373b}
622 \definecolor{mLightBrown}{HTML}{EB811B}

```

```
623 \definecolor{mLightGreen}{RGB}{0,128,128}
```

6.5.4 Base Styles

All colors in moloch are derived from the definitions of `normal text`, `alerted text`, and `example text`.

```
624 \newcommand{\moloch@colors@dark}{
625   \setbeamercolor{normal text}{%
626     fg=black!2,
627     bg=mDarkTeal
628   }
629   \usebeamercolor[fg]{normal text}
630 }
631 \newcommand{\moloch@colors@light}{
632   \setbeamercolor{normal text}{%
633     fg=mDarkTeal,
634     bg=black!2
635   }
636 }
637 \setbeamercolor{alerted text}{%
638   fg=mLightBrown
639 }
640 \setbeamercolor{example text}{%
641   fg=mLightGreen
642 }
```

6.5.5 Derived Colors

The titles and structural elements (e.g. `itemize` bullets) are set in the same color as `normal text`. This would ideally be done by setting `normal text` as a parent style, which we do to set `titlelike`, but this doesn't work for `structure` as its foreground is set explicitly in `beamercolorthemedefault.sty`.

```
643 \setbeamercolor{titlelike}{use=normal text, parent=normal text}
644 \setbeamercolor{author}{use=normal text, parent=normal text}
645 \setbeamercolor{date}{use=normal text, parent=normal text}
646 \setbeamercolor{institute}{%
647   use=normal text, fg=normal text.fg!80!normal text.bg}
648 \setbeamercolor{structure}{use=normal text, fg=normal text.fg}
```

The “primary” palette should be used for the most important navigational elements, and possibly of other elements. `moloch` uses it for frame titles and slides.

```
649 \setbeamercolor{palette primary}{%
650   use=normal text,
651   fg=normal text.bg,
652   bg=normal text.fg
653 }
654 \setbeamercolor{frametitle}{%
655   use=palette primary,
656   parent=palette primary
657 }
```

The `moloch` inner or outer themes optionally display progress bars in various locations. Their color is set by `progress bar` but the two different kinds can be customized separately. The horizontal rule on the title page is also set based on the progress bar color and can be customized with `title separator`.

```

658 \setbeamercolor{progress bar}{%
659   use=alerted text,
660   fg=alerted text.fg,
661   bg=alerted text.fg!50!black!30
662 }
663 \setbeamercolor{title separator}{
664   use=progress bar,
665   parent=progress bar
666 }
667 \setbeamercolor{progress bar in head/foot}{%
668   use=progress bar,
669   parent=progress bar
670 }
671 \setbeamercolor{progress bar in section page}{
672   use=progress bar,
673   parent=progress bar
674 }

```

Block environments such as `theorem` and `example` have no background color by default. The option `block=fill` sets a background color based on the background and foreground of `normal text`. The option `block=transparent` reverts the block environments to an empty background, which can be useful if changing colors mid-presentation.

```

675 \newcommand{\moloch@block@transparent}{
676   \setbeamercolor{block title}{bg=}
677   \setbeamercolor{block body}{bg=}
678   \setbeamercolor{block title alerted}{bg=}
679   \setbeamercolor{block title example}{bg=}
680 }
681 \newcommand{\moloch@block@fill}{
682   \setbeamercolor{block title}{%
683     bg=normal text.bg!80!fg
684   }
685   \setbeamercolor{block body}{%
686     use=block title,
687     bg=block title.bg!50!normal text.bg
688   }
689   \setbeamercolor{block title alerted}{%
690     bg=block title.bg,
691   }
692   \setbeamercolor{block title example}{%
693     bg=block title.bg,
694   }
695 }
696 \setbeamercolor{block title}{%
697   use=normal text,
698   fg=normal text.fg
699 }

```

```

700 \setbeamercolor{block title alerted}{%
701   use={block title, alerted text},
702   fg=alerted text.fg
703 }
704 \setbeamercolor{block title example}{%
705   use={block title, example text},
706   fg=example text.fg
707 }
708 \setbeamercolor{block body alerted}{use=block body, parent=block body}
709 \setbeamercolor{block body example}{use=block body, parent=block body}

```

Footnotes

```

710 \setbeamercolor{footnote}{fg=normal text.fg!90}
711 \setbeamercolor{footnote mark}{fg=.}

```

We also reset the bibliography colors in order to pick up the surrounding colors at the time of use. This prevents us having to set the correct color in normal and standout mode.

```

712 \setbeamercolor{bibliography entry author}{fg=, bg=}
713 \setbeamercolor{bibliography entry title}{fg=, bg=}
714 \setbeamercolor{bibliography entry location}{fg=, bg=}
715 \setbeamercolor{bibliography entry note}{fg=, bg=}

```

6.5.6 Process Package Options

```

716 \moloch@color@setdefaults
717 \ProcessPgfPackageOptions{/moloch/color}
718 \mode<all>

```