Trigon

A Modern, elegant and versatile theme for Beamer

Thomas Lambert

trigon@thl.ovh

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Contents

1   Introduction

Trigon found its origin and inspiration in the graphical guidelines resulting from the visual identity overhaul of the University of Liège (Belgium).

Although directly inspired from these guidelines, Trigon was stripped out of any mention or specificities related the University and its faculties. This makes the Trigon theme perfectly suitable for many different contexts.

The final product provides a modern, elegant and versatile theme with a high degree of customization.

Trigon's codebase lives on Gitlab. The implementation of this theme is strongly inspired from the excellent Metropolis theme by Matthias Vogelgesang, from which it borrows numerous options.

Any feature request, issue report or merge requests are welcome.

2   Getting Started

2.1   Installing from CTAN

The latest stable version of Trigon is available on CTAN and should now be part of the usual TeX distibutions (TeX Live, MacTeX , MikTeX), under the name beamertheme-trigon. It means that if your distribution is kept up-to-date, the package should normally be already installed on your system. If this is not the case, consider updating the packages of your Tex distribution.

For TeX Live and MacTeX users, this usually means running

```
tlmgr update --all
```

, or if administrative privileges are required

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

For MikTeX users, please refer to the official MikTeX documentation.

2.2   Installing from Gitlab

If you want to use the cutting-edge development version of Trigon, you can install it manually by following these steps:

Download the source from Trigon repository using `git clone` or as a zip archive of the latest development version.

Compile the style files by running `make sty` inside the downloaded directory. (Or run LaTeX directly on `source/trigontheme.ins`.)

Move the resulting `*.sty` files to the folder containing your presentation. To use Trigon with many presentations, run `make install` or move the `*.sty` files to a folder in your TeX path instead.

Use the theme by declaring `\usetheme{trigon}` in the preamble of your document.

Trigon uses the Make build system to offer the following installation options for advanced users:

`make sty` builds the theme style files.

`make doc` builds this documentation manual.

`make demo` builds a demo presentation to test the features of Trigon.

`make all` builds the theme and manual.

`make clean` removes the files generated by `make all`.

`make install` installs the theme into your local texmf folder.

`make uninstall` removes the theme from your local texmf folder.

2.3   Overleaf

Since October 2021, TexLive 2011 is availabe on Overleaf. Trigon is therefore automatically supported for new documents. If you want to switch older documents to use the Trigon theme, you need to select TexLive 2021 or higher as your TeX Live version (this may cause issues with other packages used in your presentation).

In addition to that, a template project was created and is publicly availabe in the Overleaf Gallery to bootstrap your presentation.

2.4   A Minimal Example

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

```
\documentclass{beamer}
\usetheme{trigon}        % Use trigon theme
\title{A minimal example}
```

```
\subtitle{A subtitle example}
\date{\today}
\author{Thomas Lambert}
\institute{Your university or company}
\begin{document}
  \maketitle
  \section{First Section}
  \begin{frame}{First Frame}
    Hello, world!
  \end{frame}
\end{document}
```

2.5   Dependencies

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

- `tikz`

- `pgfopts`

The theme works best with the open source Source Sans Pro font from Adobe. Therefore, the package `sourcesanspro` is loaded by default with the theme. However, if the user prefers to select an other font, the theme option `nosourcefonts` can be used to prevent the font package from being loaded.

3   Customization

3.1   Package options

Trigon 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 Trigon in the preamble:

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

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

```
\trigonset{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.

As Trigon implementation is heavily inspired from the excellent Metropolis theme by Matthias Vogelgesang, many of Metropolis options are also available in Trigon.

3.1.1   Main theme

background   light,dark . . . . light

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

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. Please refer to Section 5.1 for known issues with these options.

usesourcefonts   true,false . . . . true

Chooses if the `sourcesanspro` font package should be loaded `true` or not `false`.

3.1.2   Inner theme

sectionpage   none, simple . . . . simple

Adds a slide at the start of each section (`simple`). The `none` option disables the section page.

titlestyle   plain, style1, style2 . . . . style2

Changes the layout of the title page.
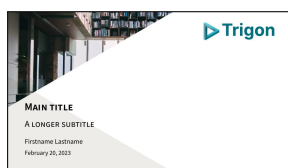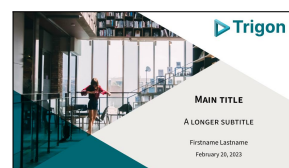
plain   style1   style2 (default)

sectionstyle   plain, style1, style2, style3 . . . . plain

Changes the layout of the section page. `style3` is similar to `plain` but with the right triangle in grey instead of theme color.

| plain (default) | style1 | style2 |
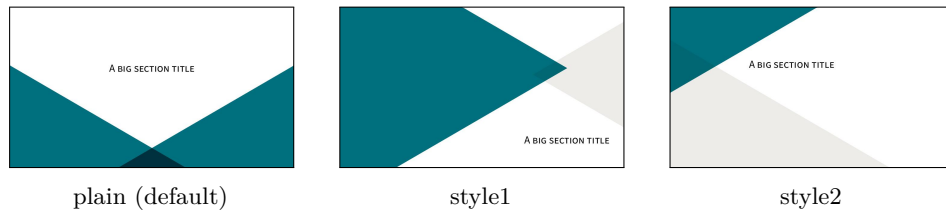
slidestyle   blank, style1, cyber . . . . blank

Changes the background of the regular frames.

| blank (default) | style1 | cyber |
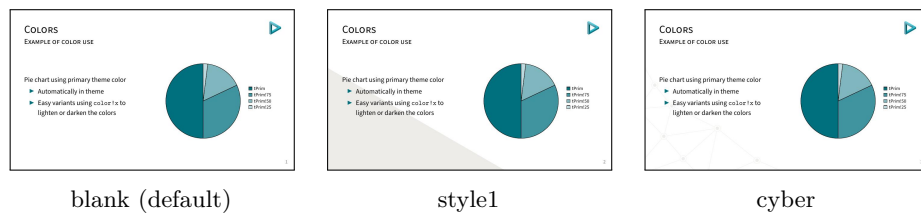
3.1.3   Outer theme

numbering   none, counter, fraction . . . . counter

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`).

3.1.4   Color theme

block   transparent, fill . . . . fill

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

headingcolor   default, theme . . . . default

Controls weather the color of all headings (title page, frame title, etc.) should be in black (`default`) or in a slightly darker shade of the theme color `theme`.

textgcolor   default, theme . . . . default

Controls weather the color of the regular text elements should be in black (`default`) or in a slightly darker shade of the theme color `theme`.

3.1.5 Font theme

regular, smallcaps, allsmallcaps, allcaps . . . . regular

Individually controls the format of titles, subtitles, section titles, and frame titles (see `titleformat`, above).

3.2 Color Customization

The included Trigon 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 a few main colors:

- `tPrim` The primary theme color, used for main triangle elements, and for headings and text if the appropriate options are selected.

- `tSec` The secondary theme color (lighter shade of the primary color), used for some triangle elements and example text.

- `tAccent` The accent color, used mostly for alerted text.

- `tGrey` A grey color, used for background elements (triangles, blocks, etc.).

- `tTxt` The default text color.

- `tBg` The default background color.

- `tGreyBg` A tint of grey to use for the triangle elements.

- `tTheme` A tint of the `tPrim` color to use for some triangle elements.

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

```
\colorlet{tPrim}{ ... }
\colorlet{tSec}{ ... }
...
```

in your preamble.

3.3 Logos

The package allows the inclusion of logos on the title page and on the content slides. For that, the following commands are defined:

```
\biglogo[<options>]{path/to/your/titlepage_logo}
\smalllogo[<options>]{path/to/your/titlepage_logo}
```

These two commands are just replacements for `\includegraphics` and they will pass the options as-is so you can perfectly size and position the images.

4 Tips & Tricks

4.1 Backup Slides

Speakers will often include extra slides at the end of their presentation to refer to during audience questions. One easy way to do this is to include the `appendixnumberbeamer` package in your preamble and call `\appendix` before your backup slides.

Trigon will automatically turn off slide numbering for slides in the appendix.

5 Known Issues

5.1 Title formats

Be aware that not every font supports small caps, so the `smallcaps` or `allsmallcaps` options may not work if you use a font other than `sourcesanspro`.

The title format options `allsmallcaps` and `allcaps` are quite nice from an aesthetic point of view, but their use of `\MakeLowercase` and `\MakeUppercase` can cause unexpected problems. For example:

- Some commands, like `\\`, do not work inside `\MakeLowercase` and `\MakeUppercase`. (See Metropolis #125)

- Only alphabetic characters are affected by `\MakeLowercase`, so numerals and punctuation remain at full height. This can spoil some of the aesthetic benefits of `allsmallcaps`. (See Metropolis #33)

- `\MakeLowercase` and `\MakeUppercase` apply to math mode and `\scshape` does not. This can easily introduce mathematical errors that are hard to catch.

- It is impossible to typeset symbols which are encoded as uppercase letters in a different font. In particular, `\mathbb` and `\mathcal` letters will be replaced by other math glyphs. (See Metropolis #153)

The `allsmallcaps` and `allcaps` options are safe to use if your titles contain only alphabetic characters and do not require the expansion of any macros.

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6 License

Trigon is licensed under the terms of the Creative Commons Attribution-ShareAlike 4.0 license.

7 Implementation

7.1 Trigon parent theme

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

7.1.1 Package dependencies

```
1 \RequirePackage{pgfopts}
2 \RequirePackage{tikz}
```

7.1.2 Options

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

```
 3 \pgfkeys{/trigon/.cd,
 4   .search also={
 5     /trigon/inner,
 6     /trigon/outer,
 7     /trigon/color,
 8     /trigon/font
 9   }
10 }
```

titleformat plain Controls the formatting of the text on standout "plain" frames.

```
11 \pgfkeys{
12   /trigon/titleformat plain/.cd,
13   .is choice,
14   regular/.code={%
15     \let\trigon@plaintitleformat\@empty%
16     \setbeamerfont{standout}{shape=\normalfont}%
17   },
18   smallcaps/.code={%
19     \let\trigon@plaintitleformat\@empty%
20     \setbeamerfont{standout}{shape=\scshape}%
21   },
22   allsmallcaps/.code={%
```

```
23      \let\trigon@plaintitleformat\MakeLowercase%
24      \setbeamerfont{standout}{shape=\scshape}%
25      \PackageWarning{beamerthemetrigon}{%
26        Be aware that titleformat plain=allsmallcaps can lead to problems%
27      }
28    },
29    allcaps/.code={%
30      \let\trigon@plaintitleformat\MakeUppercase%
31      \setbeamerfont{standout}{shape=\normalfont}%
32      \PackageWarning{beamerthemetrigon}{%
33        Be aware that titleformat plain=allcaps can lead to problems%
34      }
35    },
36 }
```

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

```
37 \pgfkeys{
38   /trigon/titleformat/.code=\pgfkeysalso{
39     font/titleformat title=#1,
40     font/titleformat subtitle=#1,
41     font/titleformat section=#1,
42     font/titleformat frame=#1,
43     titleformat plain=#1,
44   }
45 }
```

usesourcefonts Select whereas the Source Sans Pro font is being loaded automatically or not.

```
46 \newif\if@trigon@usesourcefonts
47 \pgfkeys{/trigon/.cd,
48   usesourcefonts/.is if=@trigon@usesourcefonts,
49   usesourcefonts=true,
50 }
```

7.1.3 Component sub-packages

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

```
51 \useinnertheme{trigon}
52 \useoutertheme{trigon}
53 \usecolortheme{trigon}
54 \usefonttheme{trigon}
```

7.1.4 Custom commands

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

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

```
55 \newcommand{\trigonset}[1]{\pgfkeys{/trigon/.cd,#1}}
```

7.1.5 Process package options

```
56 \ProcessOptionsBeamer
57 \ProcessPgfOptions{/trigon}
58 \if@trigon@usesourcefonts%
59   \RequirePackage[default,t1,semibold]{sourcesanspro}
60 \fi
```

7.2 Trigon 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;

- main background elements;

- itemize, enumerate, and description environments;

- block environments including theorems and proofs;

- figures and tables; and

- footnotes and plain text.

7.2.1 Package dependencies

```
61 \RequirePackage{pgfopts}
62 \RequirePackage{tikz}
63 \usetikzlibrary{calc,3d}
```

7.2.2 Definitions

We define the command `\biglogo` to specify the logo that needs to be displayed on the title frame. This command is just a replacement for `\includegraphics`, so it accepts the same options.

```
64 \def\logbig{}
65 \newcommand*\biglogo[2][width=0.28\textwidth]{
66   \ifx#2\@empty\else
```

```
67      \edef\logbig{\includegraphics[#1]{#2}}
68    \fi
69 }
```

7.2.3   Options

sectionpage   Controls whereas a slide with the section title should be inserted at the beginning of the section or not.

```
70 \pgfkeys{
71    /trigon/inner/sectionpage/.cd,
72    .is choice,
73    none/.code=\trigon@disablesectionpage,
74    simple/.code=\trigon@enablesectionpage
75 }
```

slidestyle   Controls the layout that should be used for regular slides.

```
76 \def\slidestyle{}
77 \pgfkeys{
78    /trigon/inner/slidestyle/.cd,
79    .is choice,
80    blank/.code=\def\slidestyle{blank}
81    \setbeamertemplate{background}[\slidestyle],
82    style1/.code=\def\slidestyle{smallcornertriangle}
83    \setbeamertemplate{background}[\slidestyle],
84    cyber/.code=\def\slidestyle{cyberbottom}
85    \setbeamertemplate{background}[\slidestyle]
86 }
```

titlestyle   Controls the layout that should be used for the title page.

```
87 \def\titlestyle{}
88 \pgfkeys{
89    /trigon/inner/titlestyle/.cd,
90    .is choice,
91    plain/.code=\def\titlestyle{bottomtrianglescolor},
92    style1/.code=\def\titlestyle{titlesmallimage},
93    style2/.code=\def\titlestyle{titlebigimage}
94 }
```

sectionstyle   Controls the layout that should be used for the title page.

```
95 \def\sectionstyle{}
96 \pgfkeys{
```

```
97    /trigon/inner/sectionstyle/.cd,
98    .is choice,
99    plain/.code=\def\sectionstyle{bottomtrianglescolor},
100   style1/.code=\def\sectionstyle{bigtriangles},
101   style2/.code=\def\sectionstyle{lefttriangles},
102   style3/.code=\def\sectionstyle{bottomtrianglesbw}
103 }
```

\trigon@inner@setdefaults   Sets default values for the inner theme options.

```
104 \newcommand{\trigon@inner@setdefaults}{
105   \pgfkeys{/trigon/inner/.cd,
106     sectionpage=simple,
107     slidestyle=blank,
108     titlestyle=style2,
109     sectionstyle=plain
110   }
111 }
```

7.2.4   Backgrounds

First of all, we define a few commands in order easily create the triangles used
as the main design elements of the theme. All these are defined with respect to
the \paperwidth and \paperheight of the document, so that it fits the different
aspect ratio possible.

\leftTriangle   Defines a triangle with the base on the left side (pointing right).

```
112 \newcommand{\leftTriangle}[2]{
113   (#1,#2)
114   -- (0,{#2 + tan(30)*#1} )
115   -- (0,{#2 - tan(30)*#1} )
116   -- cycle;
117 }
```

\righTriangle   Defines a triangle with the base on the right side (pointing left).

```
118 \newcommand{\rightTriangle}[2]{
119   (#1,#2)
120   -- (\the\paperwidth,{#2 + tan(30)*(\the\paperwidth-#1)} )
121   -- (\the\paperwidth,{#2 - tan(30)*(\the\paperwidth-#1)} )
122   -- cycle;
123 }
```

\topTriangle Defines a triangle with the base on the bottom side (pointing top).

```
124 \newcommand{\topTriangle}[2]{
125   (#1,#2)
126   -- ({#1 - tan(60)*#2},0)
127   -- ({#1 + tan(60)*#2},0)
128   -- cycle;
129 }
```

\leftColorTriangle Defines a colored triangle with the base on the left side (pointing right).

```
130 \newcommand{\leftColorTriangle}[3]{
131   \clip(0,0) rectangle(\the\paperwidth,\the\paperheight);
132   \path[fill=#3]
133   \leftTriangle{#1}{#2}
134 }
```

\righColorTriangle Defines a colored triangle with the base on the right side (pointing left).

```
135 \newcommand{\rightColorTriangle}[3]{
136   \clip(0,0) rectangle(\the\paperwidth,\the\paperheight);
137   \path[fill=#3]
138   \rightTriangle{#1}{#2}
139 }
```

\topColorTriangle Defines a colored triangle with the base on the bottom side (pointing top).

```
140 \newcommand{\topColorTriangle}[3]{
141   \clip(0,0) rectangle(\the\paperwidth,\the\paperheight);
142   \path[fill=#3]
143   \topTriangle{#1}{#2}
144 }
```

We then define the different backgrounds choices.

blank Blank slide background.

```
145 \defbeamertemplate{background}{blank}{}
```

smallcornertriangle Background with a small triangle in bottom left corner (used for normal frames when the appropriate option is selected).

```
146 \defbeamertemplate{background}{smallcornertriangle}{
147   \begin{tikzpicture}[blend group=multiply]
148     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
```

```
149    \leftColorTriangle{0.62\paperwidth}{0}{tGrey!30!tBg}
150  \end{tikzpicture}
151 }
```

cyberbottom   Background with "mesh" effect on the bottom left corner (used for normal frames
              when the appropriate option is selected).

```
152 \defbeamertemplate{background}{cyberbottom}{
153   \tikzstyle{cyberVertex}=[scale=1,draw=tGreyBg,circle,fill=tBg]
154   \tikzstyle{cyberVertex2}=[scale=0.5,draw=tGreyBg,circle,fill=tGreyBg]
155   \tikzstyle{cyberEdge} = [draw,color=tGreyBg]
156   \begin{tikzpicture}%[blend group=multiply]
157     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
158     \foreach \pos/\name in {
159       {(-0.05\paperwidth,0.75\paperheight)/0},
160       {(0.02\paperwidth,0.53\paperheight)/1},
161       {(-0.04\paperwidth,0.38\paperheight)/2},
162       {(0.08\paperwidth,0.40\paperheight)/3},
163       {(0.052\paperwidth,0.21\paperheight)/5},
164       {(0.24\paperwidth,0.26\paperheight)/6},
165       {(-0.08\paperwidth,-0.06\paperheight)/7},
166       {(0.12\paperwidth,0.07\paperheight)/8},
167       {(0.2\paperwidth,0.-0.08\paperheight)/9},
168       {(0.38\paperwidth,0.06\paperheight)/10},
169     {(0.56\paperwidth,-0.08\paperheight)/11}}
170     \node[cyberVertex] (\name) at \pos {};
171     \foreach \pos/\name in {
172       {(-0.05\paperwidth,0.75\paperheight)/0},
173       {(0.02\paperwidth,0.53\paperheight)/1},
174       {(-0.04\paperwidth,0.38\paperheight)/2},
175       {(0.08\paperwidth,0.40\paperheight)/3},
176       {(0.052\paperwidth,0.21\paperheight)/5},
177       {(0.24\paperwidth,0.26\paperheight)/6},
178       {(-0.08\paperwidth,-0.06\paperheight)/7},
179       {(0.12\paperwidth,0.07\paperheight)/8},
180       {(0.2\paperwidth,0.-0.08\paperheight)/9},
181       {(0.38\paperwidth,0.06\paperheight)/10},
182     {(0.56\paperwidth,-0.08\paperheight)/11}}
183     \node[cyberVertex2] (\name_2) at \pos {};
184     \foreach \source/ \dest in
185     {0/1,1/2,1/3,2/3,2/5,3/5,3/6,5/6,5/7,7/8,5/8,8/6,8/9,6/9,9/10,10/6,10/11}
186     \path[cyberEdge] (\source) --  (\dest);
187   \end{tikzpicture}
188 }
```

titlebigimage   Background for title page with a big image in the top left corener.

```
189 \defbeamertemplate{background}{titlebigimage}{
190   \begin{tikzpicture}
191     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
192     \begin{scope}[blend group=multiply]
193       \clip(0,0) rectangle(\the\paperwidth,\the\paperheight);
194       \path[fill=tTheme]\leftTriangle{0.5\paperwidth}{0}
195       \topColorTriangle{0.73\paperwidth}{0.70\paperheight}{tGrey!30!tBg}
196       \ifx\inserttitlegraphic\@empty
197         \leftColorTriangle{0.73\paperwidth}{0.70\paperheight}{tTheme}
198       \else
199         \path[clip]\leftTriangle{0.73\paperwidth}{0.70\paperheight}
200         \node[anchor=north west, inner sep=0pt, outer sep=0pt] at (0,\the\paperheight) {\inse
201       \fi
202     \end{scope}
203     \clip(0,0) rectangle(\the\paperwidth,\the\paperheight);
204     \path[fill=tBg]\rightTriangle{0.45\paperwidth}{\the\paperheight}
205     \ifx\logbig\@empty \else
206       \node[anchor=north east,inner sep=0mm] at
207       (.96*\the\paperwidth,.96*\the\paperheight) {\logbig};
208     \fi
209   \end{tikzpicture}
210 }
```

titlesmallimage   Background for the titlepage with a small image in the top left corner.

```
211 \defbeamertemplate{background}{titlesmallimage}{
212   \begin{tikzpicture}[blend group=multiply]
213     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
214     \leftColorTriangle{0.58\paperwidth}{0}{tGrey!30!tBg}
215     \ifx\logbig\@empty \else
216       \node[anchor=north east,inner sep=0mm] at
217       (.94*\the\paperwidth,.94*\the\paperheight) {\logbig};
218     \fi
219     \ifx\inserttitlegraphic\@empty
220       \leftColorTriangle{0.58\paperwidth}{\the\paperheight}{tTheme}
221     \else
222       \path[clip]\leftTriangle{0.58\paperwidth}{\the\paperheight}
223       \node[anchor=north west, inner sep=0pt, outer sep=0pt] at (0,\the\paperheight) {\insertt
224     \fi
225   \end{tikzpicture}
226 }
```

bottomtrianglescolor Background for title/section pages with two colored triangles in the bottom.

```
227 \defbeamertemplate{background}{bottomtrianglescolor}{
228   \begin{tikzpicture}[blend group=multiply]
229     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
230     \leftColorTriangle{0.62\paperwidth}{0}{tTheme}
231     \rightColorTriangle{0.38\paperwidth}{0}{tSec}
232   \end{tikzpicture}
233 }
```

bottomtrianglesbw Background for title/section pages with two black and white triangles in the bottom.

```
234 \defbeamertemplate{background}{bottomtrianglesbw}{
235   \begin{tikzpicture}[blend group=multiply]
236     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
237     \leftColorTriangle{0.62\paperwidth}{0}{tTheme}
238     \rightColorTriangle{0.38\paperwidth}{0}{tGrey!30!tBg}
239   \end{tikzpicture}
240 }
```

bigtriangles Background for section pages with a big triangle on the left.

```
241 \defbeamertemplate{background}{bigtriangles}{
242   \begin{tikzpicture}[blend group=multiply]
243     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
244     \leftColorTriangle{0.80\paperwidth}{0.62\paperheight}{tTheme}
245     \rightColorTriangle{0.68\paperwidth}{0.58\paperheight}{tGrey!30!tBg}
246   \end{tikzpicture}
247 }
```

lefttriangles Background for section pages with small triangles on the left.

```
248 \defbeamertemplate{background}{lefttriangles}{
249   \begin{tikzpicture}[blend group=multiply]
250     \useasboundingbox (0,0) rectangle(\the\paperwidth,\the\paperheight);
251     \leftColorTriangle{0.52\paperwidth}{\the\paperheight}{tTheme}
252     \leftColorTriangle{0.775\paperwidth}{0}{tGrey!30!tBg}
253   \end{tikzpicture}
254 }
```

Before anything, the regular frame background is selected.

```
255 \setbeamertemplate{background}[\slidestyle]
```

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Finally, we need to set the backgrounds properly before creating the different frames, create the special frames (title, section) and restore the regular background afterwards.

\titleframe   Sets the titleframe.

```
256 \newcommand{\titleframe}{
257   \setbeamertemplate{title page}[\titlestyle]
258   \setbeamertemplate{background}[\titlestyle]
259   \frame[plain,noframenumbering]{\titlepage}
260   \setbeamertemplate{background}[\slidestyle]
261 }
```

\sectionframe   Sets the titleframe.

```
262 \newcommand{\sectionframe}{
263   \setbeamertemplate{section page}[\sectionstyle]
264   \setbeamertemplate{background}[\sectionstyle]
265   \frame[plain,noframenumbering]{\sectionpage}
266   \setbeamertemplate{background}[\slidestyle]
267 }
268 \newcommand{\trigon@disablesectionpage}{
269   \AtBeginSection{
270     % intentionally empty
271   }
272 }
273 \newcommand{\trigon@enablesectionpage}{
274   \AtBeginSection{
275     \sectionframe
276   }
277 }
```

7.2.5   Layout

The following macros define the proper position of the various elements of the frame, so the fit nicely with the different background selected.

titlebigimage   Place the text on the title frame with a big image on the top left side.

```
278 \defbeamertemplate{title page}{titlebigimage}
279 {
280   \vskip135pt
281   \begin{flushright}
282     \begin{minipage}[t][][c]{0.5\textwidth}%
283       \centering
```

```
284        \usebeamerfont{title}\usebeamercolor[fg]{title}
285          \inserttitle\par
286        \end{minipage}
287        \ifx \insertsubtitle\@empty
288      \else
289        \vskip15pt
290        \begin{minipage}[t][][c]{0.5\textwidth}%
291          \centering
292          \usebeamerfont{subtitle}\insertsubtitle\par%
293        \end{minipage}
294      \fi
295      \vskip13pt
296      \begin{minipage}[t][][c]{0.5\textwidth}%
297        \centering
298        \usebeamerfont{author}\insertauthor%
299        \vskip5pt
300        \usebeamerfont{date}\insertdate%
301      \end{minipage}
302    \end{flushright}
303    \vfill
304 }
```

titlesmallimage   Place the text on the title frame with a small image on the top left side.

```
305 \defbeamertemplate{title page}{titlesmallimage}
306 {
307    \vskip140pt%
308    \begin{beamercolorbox}[wd=\textwidth,sep=4pt]{title page header}
309      \usebeamerfont{title}\usebeamercolor[fg]{title}\inserttitle\par%
310    \end{beamercolorbox}%
311    \ifx \insertsubtitle\@empty
312  \else
313    \vskip8pt
314    \begin{beamercolorbox}[wd=\textwidth,sep=4pt]{subtitle page header}
315      \usebeamerfont{subtitle}\insertsubtitle\par%
316    \end{beamercolorbox}%
317  \fi
318  \vskip10pt
319  \begin{beamercolorbox}[wd=\textwidth,sep=4pt]{author}
320    \usebeamerfont{author}\insertauthor%
321  \end{beamercolorbox}
322  \vskip2pt%
323  \begin{beamercolorbox}[wd=\textwidth,sep=4pt]{date}
324    \usebeamerfont{date}\insertdate%
```

```
325 \end{beamercolorbox}
326 \vfill
327 }
```

bottomtrianglescolor Place the text on the title frame with two triangles on the bottom.

```
328 \defbeamertemplate{title page}{bottomtrianglescolor}
329 {
330   \vskip0pt
331   \begin{center}
332     \begin{minipage}[t][][t]{\textwidth}
333       \centering%
334       \ifx\logbig\@empty \else
335         \logbig
336       \fi
337     \end{minipage}
338     \vskip15pt
339     \begin{minipage}[t][][c]{\textwidth}%
340       \centering
341       \usebeamerfont{title}\usebeamercolor[fg]{title}
342       \inserttitle\par
343     \end{minipage}
344     \ifx \insertsubtitle\@empty
345   \else
346     \vskip15pt
347     \begin{minipage}[t][][c]{\textwidth}%
348       \centering
349       \usebeamerfont{subtitle}\insertsubtitle\par%
350     \end{minipage}
351   \fi
352   \vskip20pt
353   \begin{minipage}[t][][c]{0.5\textwidth}%
354     \centering
355     \usebeamerfont{author}\insertauthor\\[0.3cm]%
356     \usebeamerfont{date}\insertdate
357   \end{minipage}
358 \end{center}
359 \vfill
360 }
```

bottomtrianglescolor Place the text on the section frame with two colored triangles on the bottom.

```
361 \defbeamertemplate{section page}{bottomtrianglescolor}
362 {
```

```
363   \vskip40pt
364   \begin{center}
365     \begin{minipage}[t][][c]{\textwidth}%
366       \centering
367       \usebeamerfont{section title}\usebeamercolor[fg]{title}
368       \insertsectionhead\par
369     \end{minipage}
370   \end{center}
371   \vfill
372 }
```

bottomtrianglesbw   Place the text on the section frame with two black and white triangles on the bottom.

```
373 \defbeamertemplate{section page}{bottomtrianglesbw}
374 {
375   \vskip40pt
376   \begin{center}
377     \begin{minipage}[t][][c]{\textwidth}%
378       \centering
379       \usebeamerfont{section title}\usebeamercolor[fg]{title}
380       \insertsectionhead\par
381     \end{minipage}
382   \end{center}
383   \vfill
384 }
```

bigtriangles   Place the text on the section frame with two big triangles.

```
385 \defbeamertemplate{section page}{bigtriangles}
386 {
387   \vskip200pt
388   \begin{flushright}
389     \begin{minipage}[t]{0.62\textwidth}%7
390       \usebeamerfont{section title}\usebeamercolor[fg]{title}
391       \raggedleft
392       \insertsectionhead\par
393     \end{minipage}
394   \end{flushright}
395   \vfill
396 }
```

lefttriangles   Place the text on the section frame with two small left triangles.

```
397 \defbeamertemplate{section page}{lefttriangles}
398 {
399   \vskip25pt
400   \begin{beamercolorbox}[wd=\textwidth,leftskip=100pt,sep=4pt]{section page header}
401     \usebeamerfont{section title}\usebeamercolor[fg]{title}
402     \insertsectionhead\par
403   \end{beamercolorbox}%
404   \vfill
405 }
```

7.2.6 Block environments

block

block alerted

block example

The three different block environments differ only in their colours. Rather than repeat the essentially the same template three times, we use the auxiliary macro `\trigon@block` to define all three templates.

```
406 \newlength{\trigon@blocksep}
407 \newlength{\trigon@blockadjust}
408 \setlength{\trigon@blocksep}{0.75ex}
409 \setlength{\trigon@blockadjust}{0.25ex}
410 \providecommand{\trigon@strut}{%
411   \vphantom{ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz()}%
412 }
413 \newcommand{\trigon@block}[1]{
414   \par\vskip\medskipamount%
415   \setlength{\parskip}{0pt}
```

If a background color is defined for the block title or body, we need to add a little bit of padding to the corresponding box. Ideally, this would be accomplished by setting `colsep=0.75ex`, which is intended to add "color separation space" only when the box has a colored background. Unfortunately, `colsep` also adds this separation if the background color is inherited, even if the inherited color is actually empty. (The technical reason for this boils down to the fact that the `\ifx` directive does not expand macros.)

To achieve the correct spacing for `alertblocks` and `exampleblocks` as well as for normal blocks, we have to begin the `beamercolorbox` differently based on whether `block title` has an empty background.

If the `block title` background is empty, or the user has explicitly removed the background from (e.g.) `block title alerted`, we just need to set a rightskip for a nice ragged-right block title.

```
416   \ifbeamercolorempty[bg]{block title#1}{%
417     \begin{beamercolorbox}[rightskip=0pt plus 4em]{block title#1}}{%
```

22

```
418    \ifbeamercolorempty[bg]{block title}{%
419    \begin{beamercolorbox}[rightskip=0pt plus 4em]{block title#1}%
420    }%
```

Otherwise, if the `block title` has a background, we set the padding based on `\trigon@blockskip`. However, we have to visually compensate for the `\trigon@strut` added to the block title (see below) by subtracting `\trigon@blockadjust` from the top and bottom padding.

```
421    {%
422      \begin{beamercolorbox}[
423        sep=\dimexpr\trigon@blocksep-\trigon@blockadjust\relax,
424        leftskip=\trigon@blockadjust,
425        rightskip=\dimexpr\trigon@blockadjust plus 4em\relax
426        ]{block title#1}%
427    }}%
```

We can now set the contents of the `block title`. The zero-width but positive-height box `\trigon@strut` ensures that the block title box has a consistent height, even if it lacks punctuation, ascenders, or descenders.

```
428        \usebeamerfont*{block title#1}%
429        \trigon@strut%
430        \insertblocktitle%
431        \trigon@strut%
432    \end{beamercolorbox}%
```

Next, we typeset the `block body`. This the code is similar to, but simpler than, the `block title` code since we don't need to adjust for any struts.

```
433    \nointerlineskip%
434    \ifbeamercolorempty[bg]{block body#1}{%
435      \begin{beamercolorbox}[vmode]{block body#1}}{
436    \ifbeamercolorempty[bg]{block body}{%
437      \begin{beamercolorbox}[vmode]{block body#1}%
438    }{%
439      \begin{beamercolorbox}[sep=\trigon@blocksep, vmode]{block body#1}%
440      \vspace{-\trigon@parskip}
441    }}%
442      \usebeamerfont{block body#1}%
443      \setlength{\parskip}{\trigon@parskip}%
444 }
```

This concludes the auxiliary macro `\trigon@block`. Finally, we define the block

beamer templates using this macro.

```
445 \setbeamertemplate{block begin}{\trigon@block{}}
446 \setbeamertemplate{block alerted begin}{\trigon@block{ alerted}}
447 \setbeamertemplate{block example begin}{\trigon@block{ example}}
448 \setbeamertemplate{block end}{\end{beamercolorbox}\vspace*{0.2ex}}
449 \setbeamertemplate{block alerted end}{\end{beamercolorbox}\vspace*{0.2ex}}
450 \setbeamertemplate{block example end}{\end{beamercolorbox}\vspace*{0.2ex}}
```

7.2.7 Lists and floats

```
451 \setbeamertemplate{caption label separator}{: }
452 \setbeamertemplate{caption}[numbered]
```

7.2.8 Text and spacing settings

```
453 \newlength{\trigon@parskip}
454 \setlength{\trigon@parskip}{0.5em}
455 \setlength{\parskip}{\trigon@parskip}
456 \linespread{1.15}
```

7.2.9 Margins

The margins are defined as

```
457 \setbeamersize{text margin left=.05\paperwidth, text margin right=.05\paperwidth}
```

7.2.10 Process package options

```
458 \trigon@inner@setdefaults
459 \ProcessPgfPackageOptions{/trigon/inner}
```

7.3 Trigon outer theme

A `beamer` outer theme dictates the style of the frame elements traditionally set outside the "body" of each slide, such as the frame title, the logo, the footer, etc.

7.3.1 Package dependencies

```
460 \RequirePackage{pgfopts}
```

7.3.2 Definitions

We define the command \smalllogo to specify the logo that needs to be applied displayed on all normal frames. This command is just a replacement for \includegraphics, so it accepts the same options.

```
461 \def\logsmall{}
```

24

```
462 \newcommand*\smalllogo[2][width=20pt]{
463 \ifx#2\@empty\else
464   \edef\logsmall{\includegraphics[#1]{#2}}
465 \fi
466 }
```

7.3.3   Options

numbering   Adds slide number to the bottom of each regular frame

```
467 \pgfkeys{
468   /trigon/outer/numbering/.cd,
469   .is choice,
470   none/.code=\setbeamertemplate{frame numbering}[none],
471   counter/.code=\setbeamertemplate{frame numbering}[counter],
472   fraction/.code=\setbeamertemplate{frame numbering}[fraction]
473 }
```

\trigon@outer@setdefaults   Sets default values for the outer theme options.

```
474 \newcommand{\trigon@outer@setdefaults}{
475   \pgfkeys{/trigon/outer/.cd,
476     numbering=counter
477   }
478 }
```

7.3.4   Frame title

frametitle   Template for the frame title

```
479 \defbeamertemplate*{frametitle}{trigon}
480 {
481   \vspace{-1pt}
482   \begin{beamercolorbox}[wd=\paperwidth,leftskip=0.05\paperwidth]{frametitle}
483     \vskip.4cm
484     \ifx\insertframesubtitle\@empty%
485       {\usebeamerfont{frametitle}\usebeamercolor[fg]{frametitle}\insertframetitle}%
486     \else%
487       {\usebeamerfont{frametitle}\usebeamercolor[fg]{frametitle}\insertframetitle}\\[-.25cm]
488       {\usebeamerfont{framesubtitle}\usebeamercolor[fg]{framesubtitle}\insertframesubtitle}%
489     \fi
490     \vskip.3cm
491   \end{beamercolorbox}
492 }
```

7.3.5 Fame header

headline   Templates for the frame header

```
493 \defbeamertemplate{headline}{none}{}
494 \defbeamertemplate*{headline}{logo}{
495   \ifx\logsmall\@empty\else
496     \hfill\logsmall\hspace{20pt}\vspace{-40pt}
497   \fi
498 }
```

7.3.6 Frame footer

Define various template for frame footer and manage frame numbering.

```
499 \setbeamertemplate{navigation symbols}{}
500
501 \defbeamertemplate{frame footer}{none}{}
502 \defbeamertemplate{frame footer}{custom}[1]{ #1 }
503 \defbeamertemplate{frame numbering}{none}{}
504 \defbeamertemplate{frame numbering}{counter}{\insertframenumber}
505 \defbeamertemplate{frame numbering}{fraction}{
506   \insertframenumber/\inserttotalframenumber
507 }
508
509 \defbeamertemplate{footline}{plain}{%
510   \begin{beamercolorbox}[wd=\textwidth, sep=10pt]{page number in head/foot}%
511     \usebeamerfont{page number in head/foot}%
512     \usebeamercolor[fg]{page number in head/foot}%
513     \usebeamertemplate*{frame footer}
514     \hfill%
515     \usebeamertemplate*{frame numbering}
516   \end{beamercolorbox}%
517 }
518
519 \setbeamertemplate{footline}[plain]
```

appendix   Removes page numbering and per-slide progress bars when \appendix is called.
            This makes it easier to include additional "backup slides" at the end of the pre-
            sentation, especially in conjunction with the package appendixnumberbeamer.

```
520 \AtBeginDocument{%
521   \apptocmd\appendix}{%
522     \pgfkeys{%
523       /trigon/outer/.cd,
```

```
524      numbering=none}
525    }{}{}
526 }
```

7.3.7 Process package options

```
527 \trigon@outer@setdefaults
528 \ProcessPgfPackageOptions{/trigon/outer}
```

7.4 Trigon font theme

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

7.4.1 Package dependencies

```
529 \RequirePackage{pgfopts}
```

7.4.2 Title format options

titleformat title Controls the format of the title.

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

```
555 }
```

titleformat subtitle   Controls the format of the subtitle.

```
556 \pgfkeys{
557   /trigon/font/titleformat subtitle/.cd,
558   .is choice,
559   regular/.code={%
560     \let\trigon@subtitleformat\@empty%
561     \setbeamerfont{subtitle}{shape=\normalfont}%
562   },
563   smallcaps/.code={%
564     \let\trigon@subtitleformat\@empty%
565     \setbeamerfont{subtitle}{shape=\scshape}%
566   },
567   allsmallcaps/.code={%
568     \let\trigon@subtitleformat\lowercase%
569     \setbeamerfont{subtitle}{shape=\scshape}%
570     \PackageWarning{beamerthemetrigon}{%
571       Be aware that titleformat subtitle=allsmallcaps can lead to problems%
572     }
573   },
574   allcaps/.code={%
575     \let\trigon@subtitleformat\uppercase%
576     \setbeamerfont{subtitle}{shape=\normalfont}%
577     \PackageWarning{beamerthemetrigon}{%
578       Be aware that titleformat subtitle=allcaps can lead to problems%
579     }
580   },
581 }
```

titleformat section   Controls the format of the section title.

```
582 \pgfkeys{
583   /trigon/font/titleformat section/.cd,
584   .is choice,
585   regular/.code={%
586     \let\trigon@sectiontitleformat\@empty%
587     \setbeamerfont{section title}{shape=\normalfont}%
588   },
589   smallcaps/.code={%
590     \let\trigon@sectiontitleformat\@empty%
591     \setbeamerfont{section title}{shape=\scshape}%
592   },
```

28

```
593  allsmallcaps/.code={%
594    \let\trigon@sectiontitleformat\MakeLowercase%
595    \setbeamerfont{section title}{shape=\scshape}%
596    \PackageWarning{beamerthemetrigon}{%
597      Be aware that titleformat section=allsmallcaps can lead to problems%
598    }
599  },
600  allcaps/.code={%
601    \let\trigon@sectiontitleformat\MakeUppercase%
602    \setbeamerfont{section title}{shape=\normalfont}%
603    \PackageWarning{beamerthemetrigon}{%
604      Be aware that titleformat section=allcaps can lead to problems%
605    }
606  },
607 }
```

titleformat frame   Controls the format of the frame title.

```
608 \pgfkeys{
609   /trigon/font/titleformat frame/.cd,
610   .is choice,
611   regular/.code={%
612     \let\trigon@frametitleformat\@empty%
613     \setbeamerfont{frametitle}{shape=\normalfont}%
614   },
615   smallcaps/.code={%
616     \let\trigon@frametitleformat\@empty%
617     \setbeamerfont{frametitle}{shape=\scshape}%
618   },
619   allsmallcaps/.code={%
620     \let\trigon@frametitleformat\MakeLowercase%
621     \setbeamerfont{frametitle}{shape=\scshape}%
622     \PackageWarning{beamerthemetrigon}{%
623       Be aware that titleformat frame=allsmallcaps can lead to problems%
624     }
625   },
626   allcaps/.code={%
627     \let\trigon@frametitleformat\MakeUppercase%
628     \setbeamerfont{frametitle}{shape=\normalfont}
629     \PackageWarning{beamerthemetrigon}{%
630       Be aware that titleformat frame=allcaps can lead to problems%
631     }
632   },
633 }
```

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

```
634 \pgfkeys{
635   /trigon/font/.cd,
636   titleformattitle/.code=\pgfkeysalso{titleformat title=#1},
637   titleformatsubtitle/.code=\pgfkeysalso{titleformat subtitle=#1},
638   titleformatsection/.code=\pgfkeysalso{titleformat section=#1},
639   titleformatframe/.code=\pgfkeysalso{titleformat frame=#1},
640 }
```

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

```
641 \newcommand{\trigon@font@setdefaults}{
642   \pgfkeys{/trigon/font/.cd,
643     titleformat title=regular,
644     titleformat subtitle=regular,
645     titleformat section=regular,
646     titleformat frame=regular,
647   }
648 }
```

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

```
649 \def\trigon@titleformat#1{#1}
650 \def\trigon@subtitleformat#1{#1}
651 \def\trigon@sectiontitleformat#1{#1}
652 \def\trigon@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.

```
653 \patchcmd{\beamer@title}%
654 {\def\inserttitle{#2}}%
655 {\def\inserttitle{\trigon@titleformat{#2}}}%
656 {}%
657 {\PackageError{beamerfontthemetrigon}{Patching title failed}\@ehc}
658 \patchcmd{\beamer@subtitle}%
659 {\def\insertsubtitle{#2}}%
660 {\def\insertsubtitle{\trigon@subtitleformat{#2}}}%
661 {}%
662 {\PackageError{beamerfontthemetrigon}{Patching subtitle failed}\@ehc}
663 \patchcmd{\sectionentry}
```

```
664 {\def\insertsectionhead{#2}}
665 {\def\insertsectionhead{\trigon@sectiontitleformat{#2}}}
666 {}
667 {\PackageError{beamerfontthemetrigon}{Patching section title failed}\@ehc}
668 \@tempswafalse
669 \patchcmd{\beamer@section}
670 {\edef\insertsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{\unexpanded{#1}}}}
671 {\edef\insertsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{%
672 \noexpand\trigon@sectiontitleformat{\unexpanded{#1}}}}}
673 {\@tempswatrue}
674 {}
675 \patchcmd{\beamer@section}
676 {\def\insertsectionhead{\hyperlink{Navigation\the\c@page}{#1}}}
677 {\def\insertsectionhead{\hyperlink{Navigation\the\c@page}{%
678 \trigon@sectiontitleformat{#1}}}}
679 {\@tempswatrue}
680 {}
681 \patchcmd{\beamer@section}
682 {\protected@edef\insertsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{#1}}}
683 {\protected@edef\insertsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{%
684 \noexpand\trigon@sectiontitleformat{#1}}}}
685 {\@tempswatrue}
686 {}
687 \if@tempswa\else
688   \PackageError{beamerfontthemetrigon}{Patching section title failed}\@ehc
689 \fi
690 \@tempswafalse
691 \patchcmd{\beamer@subsection}
692 {\edef\insertsubsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{\unexpanded{#1}}}}
693 {\edef\insertsubsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{%
694 \noexpand\trigon@sectiontitleformat{\unexpanded{#1}}}}}
695 {\@tempswatrue}
696 {}
697 \patchcmd{\beamer@subsection}
698 {\def\insertsubsectionhead{\hyperlink{Navigation\the\c@page}{#1}}}
699 {\def\insertsubsectionhead{\hyperlink{Navigation\the\c@page}{%
700 \trigon@sectiontitleformat{#1}}}}
701 {\@tempswatrue}
702 {}
703 \patchcmd{\beamer@subsection}
704 {\protected@edef\insertsubsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{#1}}}
705 {\protected@edef\insertsubsectionhead{\noexpand\hyperlink{Navigation\the\c@page}{%
706 \noexpand\trigon@sectiontitleformat{#1}}}}
```

31

```
707 {\@tempswatrue}
708 {}
709 \if@tempswa\else
710   \PackageError{beamerfontthemetrigon}{Patching section title failed}\@ehc
711 \fi
```

Similarly, to make the \MakeLowercase and \MakeUppercase macros work in the frame title we have to patch \beamer@@frametitle.

```
712 \providecommand{\beamer@insertframetitlecontinuation}{
713   \usebeamertemplate*{frametitle continuation}
714 }
715 \patchcmd{\beamer@@frametitle}
716   {\gdef\insertframetitle{{%
717       #2%
718     \ifnum\beamer@autobreakcount>0
719       \relax{}\space%
720       \beamer@insertframetitlecontinuation%
721     \fi%
722   }}%
723   }
724   {\gdef\insertframetitle{{%
725     \trigon@frametitleformat{#2}%
726     \ifnum\beamer@autobreakcount>0
727       \relax{}\space%
728       \beamer@insertframetitlecontinuation%
729     \fi%
730   }}%
731   }
732 {}
733 {\PackageWarning{beamerfontthemetrigon}{Patching frame title failed}\@ehc}
```

7.4.3   General font definitions

```
734 \setbeamerfont{author}       {size=\normalsize}
735 \setbeamerfont{title}        {size=\LARGE,series=\bfseries}
736 \setbeamerfont{section title}{size=\LARGE,series=\mdseries}
737 \setbeamerfont{date}         {size=\small}
738 \setbeamerfont*{subtitle}    {size=\Large}
739 \setbeamerfont{frametitle}   {size=\LARGE}
740 \setbeamerfont{framesubtitle}{size=\large}
741
742 \setbeamerfont{alerted text} {size=\normalsize,series=\bfseries}
743 \setbeamerfont{block title}{size=\normalsize,series=\bfseries}
```

```
744 \setbeamerfont{block title alerted}{size=\normalsize,series=\bfseries}
745
746 \setbeamerfont{section in toc}{size=\Large}
747 \setbeamerfont{subsection in toc}{size=\large}
748 \setbeamerfont{page number in head/foot}{size=\scriptsize}
749
750 \setbeamerfont{description item}{series=\bfseries}
751 \setbeamerfont{caption}{size=\small}
752 \setbeamerfont{caption name}{series=\bfseries}
```

7.4.4   Process package options

```
753 \trigon@font@setdefaults
754 \ProcessPgfPackageOptions{/trigon/font}
```

7.5   Trigon color theme

A `beamer` color theme sets the colors used for the different elements of the document.

7.5.1   Package dependencies

```
755 \RequirePackage{pgfopts}
```

7.5.2   Options

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

```
756 \pgfkeys{
757   /trigon/color/background/.cd,
758   .is choice,
759   dark/.code=\trigon@colors@dark,
760   light/.code=\trigon@colors@light
761 }
```

headingcolor   Select the color to use for all headings (title, section, frame, etc.).

```
762 \def\headcol{tDefaulttxt}
763 \pgfkeys{
764   /trigon/color/headingcolor/.cd,
765   .is choice,
766   default/.code=\def\headcol{tTxt},
767   theme/.code=\def\headcol{tPrim}
768 }
```

textcolor Select the color to use for all headings (title, section, frame, etc.).

```
769 \def\txtcol{black}
770 \pgfkeys{
771   /trigon/color/textcolor/.cd,
772   .is choice,
773   default/.code=\def\txtcol{tTxt},
774   theme/.code=\def\txtcol{tPrim!50!tTxt}
775 }
```

block Optionally removes the light grey background to block environments like `theorem` and `example`.

```
776 \pgfkeys{
777   /trigon/color/block/.cd,
778   .is choice,
779   transparent/.code=\trigon@block@transparent,
780   fill/.code=\trigon@block@fill
781 }
782 %
783 % \begin{macro}{\trigon@color@setdefaults}
784 % Sets default values for color theme options.
785 %    \begin{macrocode}
786 \newcommand{\trigon@color@setdefaults}{
787   \pgfkeys{/trigon/color/.cd,
788     background=light,
789     block=fill,
790     headingcolor=default,
791     textcolor=default
792   }
793 }
```

7.5.3 Base colors

```
794 \definecolor{tGreenBlue}{HTML}{00707F}
795 \definecolor{tGreenBlueLight}{HTML}{5FA4B0}
796 \definecolor{tOrange}{HTML}{F07F3C}
797 \definecolor{tYellowOrange}{HTML}{F8AA00}
798 \definecolor{tBeigePale}{HTML}{E6E6E1}
799 \definecolor{tBeige}{HTML}{C6C0B4}
800 \definecolor{tDarkBg}{HTML}{232931}
801 \definecolor{tDarkFg}{HTML}{EEEEEE}
802 \definecolor{tLightBg}{HTML}{FFFFFF}
```

7.5.4 Derived elements

All the elements are set using the base colors defined here above.

```
803 \newcommand{\trigon@colors@dark}{
804   \colorlet{tPrim}{tGreenBlueLight}
805   \colorlet{tSec}{tGreenBlue}
806   \colorlet{tAccent}{tYellowOrange}
807   \colorlet{tTxt}{tDarkFg}
808   \colorlet{tBg}{tDarkBg}
809   \colorlet{tGreyBg}{tGrey!7!tBg}
810 }
811 \newcommand{\trigon@colors@light}{
812   \colorlet{tPrim}{tGreenBlue}
813   \colorlet{tSec}{tGreenBlue}
814   \colorlet{tAccent}{tOrange}
815   \colorlet{tTxt}{black}
816   \colorlet{tBg}{tLightBg}
817   \colorlet{tGreyBg}{tGrey!25!tBg}
818 }
819 \colorlet{tGrey}{tBeige}
820 \colorlet{tTheme}{tGreenBlue}
821 \setbeamercolor{background canvas}{bg=tBg}
822 \setbeamercolor{normal text}{fg=\txtcol, bg=tBg}
823 \setbeamercolor{example text}{fg=tPrim}
824 \setbeamercolor{alerted text}{fg=tAccent}
825
826 \setbeamercolor{title}{fg=\headcol, bg= , parent=normal text}
827 \setbeamercolor{titlelike}{use=title, parent=title}
828 \setbeamercolor{author}{use=normal text, bg= , parent=normal text}
829 \setbeamercolor{date}{use=normal text, bg= , parent=normal text}
830 \setbeamercolor{institute}{use=normal text, parent=normal text}
831 \setbeamercolor{structure}{use=normal text, fg=normal text.fg}
832
833 \setbeamercolor{palette primary}{use=titlelike, parent=titlelike}
834 \setbeamercolor{frametitle}{use=titlelike, parent=titlelike}
```

Block environments such as `theorem` and `example` have a grey-tinted background color by default. The option `block=transparent` removes the background color.

```
835 \newcommand{\trigon@block@transparent}{
836   \setbeamercolor{block title}{%
837     use=normal text,
838     fg=normal text.fg,
839     bg=normal text.bg!96!fg
```

```
840    }
841    \setbeamercolor{block body}{
842      use={block title, normal text},
843      bg=block title.bg!35!normal text.bg
844    }
845 }
846 \newcommand{\trigon@block@fill}{
847    \setbeamercolor{block title}{%
848      use=normal text,
849      fg=normal text.fg,
850      bg=normal text.bg!80!normal text.fg
851    }
852    \setbeamercolor{block body}{
853      use={block title, normal text},
854      bg=block title.bg!50!normal text.bg
855    }
856 }
857
858 \setbeamercolor{block title alerted}{%
859   use={block title, alerted text},
860   bg=block title.bg,
861   fg=alerted text.fg
862 }
863 \setbeamercolor{block title example}{%
864   use={block title, example text},
865   bg=block title.bg,
866   fg=example text.fg
867 }
868 \setbeamercolor{block body alerted}{use=block body, parent=block body}
869 \setbeamercolor{block body example}{use=block body, parent=block body}
```

The color of other smaller elements is defined as follows

```
870 \setbeamercolor{footnote}{fg=normal text.fg!90!normal text.bg}
871 \setbeamercolor{footnote mark}{fg=.}
872 \setbeamercolor{footline}{fg=normal text.fg!50!normal text.bg, parent=normal text}
873 \setbeamercolor{caption}{fg=normal text.fg!60!normal text.bg, parent=normal text}
874
875 \setbeamercolor{itemize item}{use=example text, parent=example text}
876 \setbeamercolor{itemize subitem}{use=itemize item, parent=itemize item}
877 \setbeamercolor{itemize subsubitem}{use=itemize item, parent=itemize item}
878 \setbeamercolor{enumerate item}{use=example text, parent=example text}
879 \setbeamercolor{enumerate subitem}{use=enumerate item, parent=enumerate item}
880 \setbeamercolor{enumerate subsubitem}{use=enumerate item, parent=enumerate item}
```

881 `\setbeamercolor{description item}{use=example text, parent=example text}`

7.5.5 Process package options

882 `\trigon@color@setdefaults`
883 `\ProcessPgfPackageOptions{/trigon/color}`