



BEAMER theme  
Version 0.2

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# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>User Manual</b>	<b>1</b>
2.1	Using a BEAMER Theme . . . . .	1
2.2	Theme Options . . . . .	1
2.2.1	University Departments . . . . .	1
2.2.2	Frame Title Visibility . . . . .	2
2.2.3	Sign Visibility . . . . .	2
2.2.4	Czech vs. English Presentation Language . . . . .	2
<b>3</b>	<b>Implementation</b>	<b>3</b>
3.1	Presentation Theme Package . . . . .	3
3.1.1	Definition of Constants . . . . .	4
3.1.2	Declaration of Macro Prototypes . . . . .	5
3.1.3	Declaration of Variables . . . . .	5
3.1.4	Declaration of Options . . . . .	5
3.1.5	Internal Macros . . . . .	6
3.1.6	Loading of Supporting Packages . . . . .	8
3.1.7	Miscellanea and Final Settings . . . . .	8
3.2	Inner Theme Package . . . . .	8
3.2.1	Miscellanea . . . . .	10
3.3	Outer Theme Package . . . . .	10
3.4	Colors Theme Package . . . . .	11
3.4.1	User Defined Colors . . . . .	11
3.4.2	Colors of Presentation Elements . . . . .	11
3.5	Font Theme Package . . . . .	12
	<b>References</b>	<b>13</b>
<b>A</b>	<b>Minimal Working Examples</b>	<b>13</b>

# 1 Introduction

The aim of this text is to acquaint the reader with the **vsb** BEAMER theme, intended for the preparation of presentations using official VŠB – Technical University of Ostrava visual style.

Chapter 2 comprises the user manual containing a basic description of this theme. Further information on presentations typography, which is not directly related to this theme, such as, for example, how to set tables, how to handle graphs, etc., can be found in the fictional presentation that demonstrates the practical use of the **vsb** BEAMER theme. The next chapter, chapter 3, is a succinct description of the implementation. It is not necessary to study the implementation section to use the **vsb** BEAMER theme. The reader is only expected to have elementary knowledge of  $\text{\LaTeX}$ .

*Please note:* Always use the latest available version of the theme. Currently, this is version 0.2. Older versions of this theme may not conform to the proper visual style.

## 2 User Manual

The user manual will be very succinct, because the entire **vsb** BEAMER theme is designed to make using it as user-friendly as possible. The complete documentation how to use BEAMER can be found in [1].

### 2.1 Using a BEAMER Theme

We use the **vsb** BEAMER theme similarly as we use the other BEAMER themes. In the preamble of a document we simply input `\usetheme{vsb}` with one mandatory option. For minimal working example, see Appendix A.

### 2.2 Theme Options

In the `\usetheme` macro, we can list options that customize theme behavior, mostly visual aspects of the theme. Depending on their specific purpose, the options can be divided into several groups.

#### 2.2.1 University Departments

One of the important graphic elements on the front frame of the presentation is the university logo. It can be the logo of the university as a whole or it can be the logo of its part – faculty or institute. The **vsb** BEAMER theme provides a number of options to define the required department:

- the university as whole:  
`vsb` VSB - Technical University of Ostrava
- faculties:

<b>ekf</b>	Faculty of Economics
<b>fast</b>	Faculty of Civil Engineering
<b>fbi</b>	Faculty of Safety Engineering
<b>fei</b>	Faculty of Electrical Engineering and Computer Science
<b>fmt</b>	Faculty of Materials Science and Technology
<b>fs</b>	Faculty of Mechanical Engineering
<b>hgf</b>	Faculty of Mining and Geology
<b>ceet</b>	Energy and Environmental Technology Centre

- university centers and institutes:

<b>cnt</b>	Nanotechnology Centre
<b>enet</b>	ENET Centre
<b>iet</b>	Institute of Environmental Technology
<b>it4i</b>	IT4Innovations National Supercomputing Center
<b>vec</b>	Energy Research Centre

There is no default value for this option. Selection of university department is the only *mandatory option*. If no department option is used, the package error is produced.

*Remark.* From **vsb** theme point of view, there no reason to distinguish among the whole university, faculties, institutes or even departments of faculties. To simplify terminology we call them all *departments*.

### 2.2.2 Frame Title Visibility

From time to time, there is needed to gain as much as space on the frame as possible. Or there is no need to display the frame title at all. The **vsb** theme provides two options to control frame title visualization:

- **frametitle** – to display frame title
- **noframetitle** – the frame title is hidden.

The default value is **frametitle**, i.e. frame title is visible, which will probably be the predominant method of use.

### 2.2.3 Sign Visibility

The user has the option not to display the university sign in frame title. The **vsb** theme provides two options to control sign visualization:

- **sign** – to display sign in frame title
- **nosign** – the sign is hidden.

The default value is **sign**, i.e. sign is visible, which will probably be the predominant method of use.

### 2.2.4 Czech vs. English Presentation Language

There is no specific option in **vsb** theme to indicate current presentation language. The presentation language is defined through the **babel** package as usual. The **vsb** theme determines the presentation language using **babel** internal macros. If other than Czech or English language is selected, the **vsb** theme displays package error.

### 3 Implementation

The BEAMER theme `vsb` is divided into five themes, that cover specific part of theme definition [1]:

**Presentation Theme** A presentation theme dictates for every single detail of a presentation what it looks like. Choosing a presentation theme, a presentation will look the way someone (the creator of the theme) thought that a presentation should look like. Presentation themes typically only choose a particular color theme, font theme, inner theme, and outer theme that go well together. Implementation of this theme is described in Sect. 3.1.

**Inner Theme** An inner theme specifies how certain elements of a presentation are typeset. This includes all elements that are at the “inside” of the frame, that is, that are not part of the headline, footline, or sidebars. This includes all enumerations, itemize environments, block environments, theorem environments, or the table of contents. The implementation can be found in Sect. 3.2.

**Outer Theme** An outer theme specifies what the “outside” or “border” of the presentation slides should look like. It specifies whether there are headlines and footlines, what is shown in them, whether there is a sidebar, where the logo goes, where the navigation symbols and bars go, and so on. It also specifies where the frametitle is put and how it is typeset. Implementation details are provided in Sect. 3.3.

**Color Theme** A color theme only dictates which colors are used in a presentation, for implementation see Sect. 3.4.

**Font Theme** A font theme dictates which fonts or font attributes are used in a presentation, for implementation see Sect. 3.5.

*Remark.* This section provides documented package source code, from user point of view it is *not* necessary to study this section.

*Remark.* All macros starting with prefix `vsb@` are considered as package’s private definitions and they cannot be used outside the package.

#### 3.1 Presentation Theme Package

This package is the main package of the `vsb` BEAMER theme. This package defines “logic” behind the visual style of presentation.

```
1 \ProvidesPackage{beamerthemevsb}
2 \mode<presentation>
```

**Dependencies** `vsb` BEAMER theme depends on several packages that have to be loaded at first – mathematical packages `bm` and `fixmath`, package developer tools `etoolbox`, table typography improvement `booktabs`, and system-like packages `ifthen` and `ifluatex` that provide conditional compilation functionality.

```
3 \RequirePackage{bm}
```

```

4 \RequirePackage{booktabs}
5 \RequirePackage{etoolbox}
6 \RequirePackage{fixmath}
7 \RequirePackage{ifthen}
8 \RequirePackage{ifluatex}

```

**Font Setup** Next important step is font setup. The font depends on  $\text{\TeX}$  engine that is used to compile presentation source code. There are generally two options:  $\text{pdf\LaTeX}$  and  $\text{Lua\LaTeX}$ . The preferred option is  $\text{Lua\LaTeX}$  because of its the Unicode support. The  $\text{Lua\LaTeX}$  is also capable to access system OpenType fonts. The  $\text{pdf\LaTeX}$  options is provided due to compatibility with older  $\text{\TeX}$  installations.

When presentation is compiled via  $\text{Lua\LaTeX}$  `fontspec` package is loaded and availability<sup>1</sup> of Calibri font is checked. If Calibri fonts is not available, the Latin Modern Sans font is used as fall-back default sans-serif font.

*Remark.* Please note that `\IfFontExistsTF` macro can be slow since the engine may resort to scanning the filesystem for a missing font.

```

9 \ifluatex
10 \PackageInfo{vsb beamer theme}{Using luatex}
11 \usepackage[no-math]{fontspec}
12 \IfFontExistsTF{Calibri}
13 {
14 \PackageInfo{vsb beamer theme}{Using Calibri font}
15 \setsansfont{Calibri}
16 }
17 {
18 \PackageWarning{vsb beamer theme}
19   {Calibri font not found. Using Latin Modern Sans instead.}
20 \setsansfont{Latin Modern Sans}
21 }
22 \else
23 \PackageInfo{vsb beamer theme}{Using pdflatex}
24 \usepackage[T1]{fontenc}
25 \usepackage[utf8x]{inputenc}
26 \fi

```

### 3.1.1 Definition of Constants

**Theme Images** These macros provide unified mechanism to specify theme images. Using this approach, we are able to easily change names and path of image files.

```

27 \newcommand{\vsb@ThemeImagesDirectory}{ThemeImg}
28 \newcommand{\vsb@UniversityCZENLogoFileName}%
29   {\vsb@ThemeImagesDirectory/vsbCZEN.pdf}
30 \newcommand{\vsb@BuildingImageFileName}%
31   {\vsb@ThemeImagesDirectory/vsbBuilding.pdf}
32 \newcommand{\vsb@TightSignFileName}%
33   {\vsb@ThemeImagesDirectory/vsbSignTight.pdf}
34 \newcommand{\vsb@BibIcon}{\vsb@ThemeImagesDirectory/bibicon.pdf}

```

---

<sup>1</sup>The Calibri font is licensed and is available on Windows system from Windows Vista and Office 2007, see <https://en.wikipedia.org/wiki/Calibri>

### 3.1.2 Declaration of Macro Prototypes

`\vsb@LogoFileName` A macro will store filename with the department logo<sup>2</sup>. The logo selection process depends on two factors:

- on current presentation language, and
- on current department.

Therefore, the correct department logo can only be determined when source codes of presentation are compiled and cannot be predefined, “hard-wired”, in theme source code. The selection process is implemented via options, see Sect. 3.1.4.

The default value of the macro is empty – no logo is selected. This feature allows us to determine incorrect option declaration and emit error message.

```
35 \newcommand{\vsb@LogoFileName}{}

```

### 3.1.3 Declaration of Variables

`vsb@DisplayFrameTitle` A boolean variable `vsb@DisplayFrameTitle` holds the current status of frame title visualization. The default value is `true` – frame title is drawn, visible.

```
36 \newboolean{vsb@DisplayFrameTitle}
37 \setboolean{vsb@DisplayFrameTitle}{true}

```

`vsb@DisplaySign` A boolean variable `vsb@DisplaySign` holds the current status of frame title sign visualization. The default value is `true` – frame title sign is drawn, visible.

```
38 \newboolean{vsb@DisplaySign}
39 \setboolean{vsb@DisplaySign}{true}

```

`\vsb@TitleHeight` Auxiliary length variable that stores height of a title of a frame.

```
40 \newlength\vsb@TitleHeight

```

### 3.1.4 Declaration of Options

**Department Name Options** The group of options defines one option for each department implemented in `vsb` theme. Depending on the department and the current language, the logo is set.

```
41 \DeclareOptionBeamer{vsb}{\renewcommand{\vsb@LogoFileName}%
42   {\vsb@ThemeImagesDirectory/\vsb@LangDep{vsbEN.pdf}{vsbCZ.pdf}}}
43 \DeclareOptionBeamer{ekf}{\renewcommand{\vsb@LogoFileName}%
44   {\vsb@ThemeImagesDirectory/\vsb@LangDep{ekfEN.pdf}{ekfCZ.pdf}}}
45 \DeclareOptionBeamer{enet}{\renewcommand{\vsb@LogoFileName}%
46   {\vsb@ThemeImagesDirectory/\vsb@LangDep{enetEN.pdf}{enetCZ.pdf}}}
47 \DeclareOptionBeamer{fast}{\renewcommand{\vsb@LogoFileName}%
48   {\vsb@ThemeImagesDirectory/\vsb@LangDep{fastEN.pdf}{fastCZ.pdf}}}
49 \DeclareOptionBeamer{fbi}{\renewcommand{\vsb@LogoFileName}%
50   {\vsb@ThemeImagesDirectory/\vsb@LangDep{fbiEN.pdf}{fbiCZ.pdf}}}
51 \DeclareOptionBeamer{fei}{\renewcommand{\vsb@LogoFileName}%
52   {\vsb@ThemeImagesDirectory/\vsb@LangDep{feiEN.pdf}{feiCZ.pdf}}}
53 \DeclareOptionBeamer{fmt}{\renewcommand{\vsb@LogoFileName}%
54   {\vsb@ThemeImagesDirectory/\vsb@LangDep{fmtEN.pdf}{fmtCZ.pdf}}}

```

---

<sup>2</sup>For definition of department please see Sect. 2.2.1.



```

55 \DeclareOptionBeamer{fs}{\renewcommand{\vsb@LogoFileName}%
56   {\vsb@ThemeImagesDirectory/\vsb@LangDep{fsEN.pdf}{fsCZ.pdf}}}
57 \DeclareOptionBeamer{hgf}{\renewcommand{\vsb@LogoFileName}%
58   {\vsb@ThemeImagesDirectory/\vsb@LangDep{hgfEN.pdf}{hgfCZ.pdf}}}
59 \DeclareOptionBeamer{it4i}{\renewcommand{\vsb@LogoFileName}%
60   {\vsb@ThemeImagesDirectory/\vsb@LangDep{it4iEN.pdf}{it4iCZ.pdf}}}
61 \DeclareOptionBeamer{cnt}{\renewcommand{\vsb@LogoFileName}%
62   {\vsb@ThemeImagesDirectory/\vsb@LangDep{cntEN.pdf}{cntCZ.pdf}}}
63 \DeclareOptionBeamer{iet}{\renewcommand{\vsb@LogoFileName}%
64   {\vsb@ThemeImagesDirectory/\vsb@LangDep{ietEN.pdf}{ietCZ.pdf}}}
65 \DeclareOptionBeamer{vec}{\renewcommand{\vsb@LogoFileName}%
66   {\vsb@ThemeImagesDirectory/\vsb@LangDep{vecEN.pdf}{vecCZ.pdf}}}
67 \DeclareOptionBeamer{ceet}{\renewcommand{\vsb@LogoFileName}%
68   {\vsb@ThemeImagesDirectory/\vsb@LangDep{ceetEN.pdf}{ceetCZ.pdf}}}

```

**Frame Title Option** There are two options defining visibility, `frametitle`, or non-visibility, `noframetitle`, of frame title. According to used option, the variable `vsb@DisplayFrameTitle` is set.

```

69 \DeclareOptionBeamer{frametitle}%
70   {\setboolean{vsb@DisplayFrameTitle}{true}}
71 \DeclareOptionBeamer{noframetitle}%
72   {\setboolean{vsb@DisplayFrameTitle}{false}}

```

**Sign Option** There are two options defining visibility, `sign`, or non-visibility, `nosign`, of frame title sign. The variable `vsb@DisplaySign` is set accordingly.

```

73 \DeclareOptionBeamer{sign}%
74   {\setboolean{vsb@DisplaySign}{true}}
75 \DeclareOptionBeamer{nosign}%
76   {\setboolean{vsb@DisplaySign}{false}}

```

Now, all unprocessed options are passed to BEAMER.

```
77 \ProcessOptionsBeamer
```

### 3.1.5 Internal Macros

`\vsb@LangDep` The macro provides ability to process some material depending on the current presentation language. The current presentation language is detected using `\iflanguage` macro provided by `babel` package. If the current language is not English nor Czech a package error is displayed. Macro parameter:

1. English material
2. Czech material

```

78 \newcommand{\vsb@LangDep}[2]{\iflanguage{english}{#1}%
79   {\iflanguage{czech}{#2}
80   {\PackageError{vsb beamer theme}{Unknown language}}}}

```

`\vsb@OpeningFrames` The macro automates production of presentation's opening frames. The `vsb` theme supposes two opening frames:

1. just graphics – combined Czech and English university logo, stylized image of university central building, university base URL, and

2. title page of presentation itself.

```

81 \newcommand{\vsb@OpeningFrames}
82 {
83 \begin{frame}[plain,noframenumbering]
84 \begin{center}
85 \includegraphics[height=0.19\textheight]{%
86   {\vsb@UniversityCZENLogoFileName}\}[8mm]
87 \includegraphics[height=0.34\textheight]{%
88   {\vsb@BuildingImageFileName}\}[8mm]
89 \color{\vsb@GreenColor}{\Large{}www.vsb.cz}
90 \end{center}
91 \end{frame}
92 \begingroup
93 \setbeamertemplate{footline}
94 {
95 \leavevmode
96 \hbox{%
97   \begin{beamercolorbox}%
98     [wd=\paperwidth,ht=2.25ex,dp=1ex,center]{author in head/foot}%
99 \end{beamercolorbox}}%
100 \vskip0pt
101 }
102 \begin{frame}[noframenumbering]
103 \titlepage
104 \end{frame}
105 \endgroup
106 }

```

**\vsb@ClosingFrames** Like macro `\vsb@OpeningFrames`, macro `\vsb@ClosingFrames` automates production of presentation's closing frames. Closing frame is almost identical to the title page, but title of presentation is replaced with "Thank you for your attention" message in English or Czech, depending on the current language of presentation.

```

107 \newcommand{\vsb@ClosingFrames}
108 {
109 \section{}
110 \begingroup
111 \setbeamertemplate{footline}
112 {
113 \leavevmode
114 \hbox{%
115   \begin{beamercolorbox}%
116     [wd=\paperwidth,ht=2.25ex,dp=1ex,center]{author in head/foot}%
117   \end{beamercolorbox}}%
118 \vskip0pt
119 }
120 \title[]{\vsb@LangDep{Thank you for your attention}%
121   {Děkuji za pozornost}}
122 \subtitle{\phantom{S}}
123 \begin{frame}[noframenumbering]
124 \titlepage
125 \end{frame}
126 \endgroup

```

```
127 }
```

### 3.1.6 Loading of Supporting Packages

Supporting packages with inner, outer, color and font theme have to be also loaded.

```
128 \useinnertheme{vsb}
129 \useoutertheme{vsb}
130 \usecolortheme{vsb}
131 \usefonttheme{vsb}
```

### 3.1.7 Miscellanea and Final Settings

There are several things that have to be set at the end of the package.

Macro `setbeamercovered` makes covered text “transparent.” This would mean that when covered text is shown, it would instead be mixed with the background behind it.

```
132 \setbeamercovered{transparent}
```

The `vsb` theme uses two standard macros that allow to specify what should be automatically done at the beginning and at the end of the document. At the beginning, macro `\g@addto@macro\beamer@lastminutepatches`, the title graphic is set, or error message is displayed, and `\vsb@OpeningFrames` macro is executed. At the end of the document, macro `\AtEndDocument`, macro `\vsb@ClosingFrames` is called.

```
133 \g@addto@macro\beamer@lastminutepatches
134 {
135   \ifdefempty{\vsb@LogoFileName}
136   {
137     \PackageError{vsb beamer theme}{No department logo is given.}
138   }
139   {
140     \titlegraphic{\edef\tmp{\noexpand%
141       \includegraphics[height=0.2\textheight]{\vsb@LogoFileName}}\tmp}
142   }
143   \vsb@OpeningFrames
144 }
145 \AtEndDocument{\vsb@ClosingFrames}
146 \mode<all>
```

## 3.2 Inner Theme Package

An inner theme specifies how all enumerations, itemize environments, block environments, theorem environments, or the table of contents are typeset.

```
147 \ProvidesPackage{beamerinnerthemevsb}
148 \mode<presentation>

149 \setbeamertemplate{blocks}[default]
150 \setbeamertemplate{block begin}%
151 {%
152   \settoheight{\vsb@TitleHeight}{\insertblocktitle}%
153   \par\vskip\medskipamount%
154   \ifnum\vsb@TitleHeight>0%
```

```

155 \begin{beamercolorbox}[colsep*=.75ex]{block title}
156 \usebeamerfont*{block title}\insertblocktitle%
157 \end{beamercolorbox}%
158 {\parskip0pt\par}%
159 \ifbeamercoloreempty[bg]{block title}
160 {}
161 {\ifbeamercoloreempty[bg]{block body}{\nointerlineskip\vskip-0.5pt}}%
162 \fi%
163 \usebeamerfont{block body}%
164 \begin{beamercolorbox}[colsep*=.75ex,vmode]{block body}%
165 \ifbeamercoloreempty[bg]{block body}%
166   {\vskip-.25ex}{\vskip-.75ex}\vbox{}%
167 }
168 \setbeamertemplate{block alerted begin}
169 {
170 \settoheight{\vsb@TitleHeight}{\insertblocktitle}%
171 \par\vskip\medskipamount%
172 \ifnum\vsb@TitleHeight>0%
173 \begin{beamercolorbox}[colsep*=.75ex]{block title alerted}
174 \usebeamerfont*{block title alerted}\insertblocktitle%
175 \end{beamercolorbox}%
176 {\parskip0pt\par}%
177 \ifbeamercoloreempty[bg]{block title alerted}
178 {}
179 {\ifbeamercoloreempty[bg]{block body alerted}%
180   {\nointerlineskip\vskip-0.5pt}}%
181 \fi%
182 \usebeamerfont{block body alerted}%
183 \begin{beamercolorbox}[colsep*=.75ex,vmode]{block body alerted}%
184 \ifbeamercoloreempty[bg]{block body alerted}%
185   {\vskip-.25ex}{\vskip-.75ex}\vbox{}%
186 }
187 \setbeamertemplate{block example begin}
188 {
189 \settoheight{\vsb@TitleHeight}{\insertblocktitle}%
190 \par\vskip\medskipamount%
191 \ifnum\vsb@TitleHeight>0%
192 \begin{beamercolorbox}[colsep*=.75ex]{block title example}
193 \usebeamerfont*{block title example}\insertblocktitle%
194 \end{beamercolorbox}%
195 {\parskip0pt\par}%
196 \ifbeamercoloreempty[bg]{block title example}
197 {}
198 {\ifbeamercoloreempty[bg]{block body example}%
199   {\nointerlineskip\vskip-0.5pt}}%
200 \fi%
201 \usebeamerfont{block body example}%
202 \begin{beamercolorbox}[colsep*=.75ex,vmode]{block body example}%
203 \ifbeamercoloreempty[bg]{block body example}%
204   {\vskip-.25ex}{\vskip-.75ex}\vbox{}%
205 }

```

### 3.2.1 Miscellanea

There are several things that have to also be set:

```
206 \setbeamertemplate{navigation symbols}{}
207 \setbeamertemplate{items}[square]
208 \setbeamertemplate{sections/subsections in toc}[square]
209 \setbeamertemplate{bibliography item}%
210   {\raisebox{-1.9mm}{\includegraphics[width=1.5em]{\vsb@BibIcon}}}
211 \setbeamersize{text margin left=1.25em, text margin right=1.25em}
212 \mode<all>
```

## 3.3 Outer Theme Package

An outer theme specifies format of headlines, footlines, sidebars, the navigation symbols, and so on.

```
213 \ProvidesPackage{beamerouterthemevsb}
214 \mode<presentation>
```

The implementation is more or less straightforward, only `frametitle` template depends on `vsb@DisplayFrameTitle` and `vsb@DisplaySign` variables.

```
215 \ifthenelse{\boolean{vsb@DisplayFrameTitle}}
216 {
217   \ifthenelse{\boolean{vsb@DisplaySign}}
218   {
219     \setbeamertemplate{frametitle}
220     {
221       \nointerlineskip
222       \begin{beamercolorbox}[sep=0.3cm,ht=1.8em,wd=\paperwidth]%
223       {frametitle}
224       \vbox{}\vskip-2ex
225       \strut\insertframetitle\strut
226       \hfill
227       \raisebox{-0.25\height}{%
228         \includegraphics[height=1.35em]{\vsb@TightSignFileName}}
229       \vskip-0.8ex%
230       \end{beamercolorbox}
231     }
232   }
233   {
234     \setbeamertemplate{frametitle}[default][left]
235   }
236 }
237 {
238   \setbeamertemplate{frametitle}{}
239 }

240 \defbeamertemplate*{headline}{vsb theme}%
241 {%
242   \leavevmode%
243   \hbox%
244   {%
245     \begin{beamercolorbox}%
246       [wd=\paperwidth,ht=2.25ex,dp=1.5ex,leftskip=0.3cm]%
247     {section in head/foot}%
```

```

248 \usebeamerfont{section in head/foot}\insertsectionhead\hspace*{2ex}%
249 \ifx\insertsubsectionhead\empty%
250 \else/\hspace*{2ex}\insertsubsectionhead\hspace*{2ex}%
251 \fi%
252 \end{beamercolorbox}%
253 }%
254 }

255 \defbeamertemplate*{footline}{vsb theme}
256 {
257 \leavevmode
258 \hbox%
259 {%
260 \begin{beamercolorbox}%
261   [wd=.333333\paperwidth,ht=2.25ex,dp=1ex,leftskip=0.3cm]%
262 {author in head/foot}%
263 \usebeamerfont{author in head/foot}%
264 \insertshortauthor\expandafter\beamer@ifempty%
265 \expandafter{\beamer@shortinstitute}{~}{~(\insertshortinstitute)}%
266 \end{beamercolorbox}%
267 \begin{beamercolorbox}%
268   [wd=.333333\paperwidth,ht=2.25ex,dp=1ex,center]{title in head/foot}%
269 \usebeamerfont{title in head/foot}\insertshorttitle%
270 \end{beamercolorbox}%
271 \begin{beamercolorbox}%
272   [wd=.333333\paperwidth,ht=2.25ex,dp=1ex,right]%
273 {pagenum in head/foot}%
274 \usebeamerfont{pagenum in head/foot}%
275 \insertframenumber{~}/~\inserttotalframenumber\hspace*{0.3cm}%
276 \end{beamercolorbox}%
277 }
278 \vskip0pt
279 }

280 \mode<all>

```

### 3.4 Colors Theme Package

The `beamercolorthemevsb` defines `vsb` theme colors and set the color of presentation elements to the desired values. The color of element can be specified explicitly or the color is inherited from parental element.

```

281 \ProvidesPackage{beamercolorthemevsb}
282 \mode<presentation>

```

#### 3.4.1 User Defined Colors

There just one importat user defined color – university specific green shade.

```

283 \definecolor{vsb@GreenColor}{RGB}{0,164,153}

```

#### 3.4.2 Colors of Presentation Elements

This section sets the color of selected presentation elements. These elements are:

- text elements

```

284 \setbeamercolor{normal text}{fg=black,bg=white}
285 \setbeamercolor{alerted text}{parent=normal text}
286 \setbeamercolor{example text}{parent=normal text}
287 \setbeamercolor{structure}%
288 {fg=vsb@GreenColor,bg=vsb@GreenColor!20!white}
289 \setbeamercolor{titlelike}{parent=structure,bg=white}
290 \setbeamercolor{frametitle}{parent=structure}

```

- block elements

```

291 \setbeamercolor{block title}%
292 {parent=structure,fg=white,bg=vsb@GreenColor}
293 \setbeamercolor{block title alerted}{parent=block title}
294 \setbeamercolor{block title example}{parent=block title}
295 \setbeamercolor{block body}%
296 {parent=normal text,use=block title,bg=structure.bg}
297 \setbeamercolor{block body alerted}{parent=block body}
298 \setbeamercolor{block body example}{parent=block body}

```

- itemize environment

```

299 \setbeamercolor{itemize item}{parent=structure}
300 \setbeamercolor{itemize subitem}{parent=structure}
301 \setbeamercolor{itemize subsubitem}{parent=structure}

```

- table of contents

```

302 \setbeamercolor{section in toc}{parent=normal text}
303 \setbeamercolor{subsection in toc}{parent=normal text}

```

- header and footer of slides

```

304 \setbeamercolor{author in head/footer}{fg=white,bg=vsb@GreenColor}
305 \setbeamercolor{title in head/footer}{parent=author in head/footer}
306 \setbeamercolor{section in head/footer}{parent=author in head/footer}
307 \setbeamercolor{subsection in head/footer}%
308 {parent=author in head/footer}
309 \setbeamercolor{pagenum in head/footer}{parent=author in head/footer}
310 \mode<all>

```

### 3.5 Font Theme Package

The `beamerfontthemevsb` package defines font family, shape and size used in particular presentation elements of the `vsb` theme.

```

311 \ProvidesPackage{beamerfontthemevsb}
312 \mode<presentation>
313 \usefonttheme[onlymath]{serif}
314 \setbeamerfont{title in head/footer}{series=\bfseries}
315 \setbeamerfont{author in head/footer}{parent=title in head/footer}
316 \setbeamerfont{section in head/footer}{parent=title in head/footer}
317 \setbeamerfont{subsection in head/footer}{parent=title in head/footer}
318 \setbeamerfont{pagenum in head/footer}{parent=title in head/footer}
319 \setbeamerfont{block title}{size=\normalsize}
320 \let\Tiny=\tiny
321 \mode<all>

```

## References

1. TANTAU, Till; WRIGHT, Joseph; MILETIC, Vedran. *The BEAMER class User Guide*. 1st ed. London: Samurai Media Limited, 2016. ISBN 9789888406296. Available also from: <http://tug.ctan.org/macros/latex/contrib/beamer/doc/beameruserguide.pdf>.

## Change History

v0.1		v0.2
General: First pre-release	..... i	General: Second pre-release ..... i

## A Minimal Working Examples

The appendix provides a minimal working example of presentation source code. The presentation is supposed to be compiled using Lua<sup>A</sup>T<sub>E</sub>X. All possible theme options are left at their default values.

### Minimal English Presentation

```
1 \documentclass[lualatex,hyperref={pdfencoding=auto}]{beamer}
2 \usepackage[english]{babel}
3
4 \usetheme[vsb]{vsb}
5
6 \title[Short Title]{Long Title}
7 \subtitle{Subtitle}
8 \author{Name Surname}
9 \institute[VSB-TUO]{VSB -- Technical University of Ostrava\\
10 \hspace{2mm}name.surname@vsb.cz}
11 \date[23/5/2019]{May 23, 2019}
12
13
14 \begin{document}
15
16 \begin{frame}
17 \frametitle{Hello world}
18 Lorem ipsum\ldots
19 \end{frame}
20
21 \end{document}
```

### Minimal Czech Presentation

```
1 \documentclass[lualatex,hyperref={pdfencoding=auto}]{beamer}
2 \usepackage[czech]{babel}
3
4 \usetheme[vsb]{vsb}
```



```

5
6 \title[Krátký název]{Dlouhý název}
7 \subtitle{Podnadpis}
8 \author{Jméno Příjmení}
9 \institute[VŠB-TUO]{VŠB -- Technická univerzita Ostrava\\
10 \hspace{2mm}jmeno.prijmeni@vsb.cz}
11 \date[23.~5.~2019]{23.~května 2019}
12
13
14 \begin{document}
15
16 \begin{frame}
17 \frametitle{Ahoj lidi}
18 Příšerně žlutoučký kůňúpěl ďábelské ódy\ldots
19 \end{frame}
20
21 \end{document}

```