stmtext class description
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v20191127

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November 27, 2019

`stmtext` is a wrapper documentclass around a selection of existing class layouts for LaTeX. Additionally, it allows quick access to the modules of `stmlatex`.

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1. About

stmtext is supposed to be an easy-to-use interface to several other document classes with the additional use of the modules of stmlatex. The class addresses users who want to use certain features without initially worrying about their implementation. However, there will most certainly come a point in the learning curve of a LATEX user where this documentclass becomes insufficient. That's what's wanted. Maybe, until this point, the class has helped to bring some possibilities of LATEX closer.

The complete class and module system can be found at
https://github.com/raedma/stmlatex

2. Options

This section describes the class options. All options are key-value-options, meaning they are set using the definition KEY=VALUE. It must be noted that these options can not represent the full features of the module packages. In case more advanced options are required make sure to have a look at the individual package descriptions and consider loading them individually. Maybe you find what you need.

2.1. Overview

Boolean options   These options can only have the values true or false.

Table 1: Boolean class options

Key	Default value	Description
attachfile	false	Load the attachfile package at the correct position relative to stmhyperref
cleverref	false	Load the cleverref package at the correct position relative to stmhyperref
color	true	Load the stmcolors package
conditionallox	true	Load the stmconditionallox package
conditionalloxnewpage	true	Set the value of the newpage option in the stmconditionallox package
date	false	Load the stmdate package
glossaries	false	Load the stmglossaries package
index	false	Load the stmindex package
hyperref	true	Load the stmhyperrefsetup package
listings	false	Load the stmlistings package
math	false	Load the stmmath package
plots	false	Load the stmplots package
tikz	false	Load the stmtikz package
units	false	Load the stmunits package

String options These options have strings as values. Possible arguments are listed. The default is underlined.

Table 3: String class options

Key	Values	Description
language	german|<u>english</u>	Document language, Load the **stmlanguage** package with this option
layout	standard|dlr|<u>koma</u>	Document layout
type	article|<u>report</u>|book	Base document type

The following options are only available for `layout=dlr` which uses the RM-LaTeX based document classes.

Table 5: Additional string class options for `layout=dlr`

Key	Values	Description
institute	<u>FA-STM</u>	See the RM-LaTeX documentation for alternatives
site	<u>BS</u>	See the RM-LaTeX documentation for alternatives

2.2. **Option** `attachfile`

2.3. **Option** `cleverref`

2.4. **Option** `color`

2.5. **Option** `conditionallox`

conditionallox: Compile 3 times

2.6. **Option** `conditionalloxnewpage`

2.7. **Option** `date`

2.8. **Option** `glossaries`

2.9. **Option** `index`

2.10. **Option** `institute`

2.11. **Option** `hyperref`

https://tex.stackexchange.com/a/26592

3. Usage

3.1. `type`-independent document structure

coseoul package

Keywords

A. The code

A.1. stmtext.cls

```
1   %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
2   % Header                        %
3   %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4   %
5   % This is a document class for structural mechanics
6   % documentation
7   %
8   % Usage
9   %  - Premble:
10  %    - \documentclass{stmtext}
11  %
12  % Revisions: 2019-11-25 Martin Raedel <martin.raedel@dlr.de>
13  %                        Initial draft
14  %
15  % Contact:    Martin Raedel,  martin.raedel@dlr.de
16  %             DLR Composite Structures and Adaptive Systems
17  %
18  %                                __/|__
19  %                               /_/_/_/
20  %             www.dlr.de/fa/en      |/ DLR
21  %
22  % Copyright (C) 2019-... DLR Composite Structures and
23  %     Adaptive Systems
24  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
25  % Content                         %
26  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
27
28  % Declare that this style file requires at least LaTeX
29      version 2e.
29  \NeedsTeXFormat{LaTeX2e}
30
31  % Provide the name of your page, the date it was last
        updated, and a comment about what it's used for
32  \ProvidesClass{stmtext}[2019/11/25 STM documentation class]
33
34  % -------------------------
35  % Package
36  % -------------------------
37
```

```latex
38  \@ifpackageloaded{kvoptions}{}{\RequirePackage{kvoptions}}%
39  \@ifpackageloaded{ifthen}{}{\RequirePackage{ifthen}}%
40
41  % --------------------------
42  % Options base
43  % --------------------------
44
45  \SetupKeyvalOptions{%
46    family=stmtextbase,%
47    prefix=stmtextbase@,%
48    setkeys=\kvsetkeys,%
49  }
50
51  % String options
52  \DeclareStringOption[report]{type}
53  \DeclareStringOption[koma]{layout}
54
55  % Process options
56  \ProcessKeyvalOptions{stmtextbase}
57
58  % --------------------------
59  % Options
60  % --------------------------
61
62  \SetupKeyvalOptions{%
63    family=stmtext,%
64    prefix=stmtext@,%
65    setkeys=\kvsetkeys,%
66  }
67
68  % Bool option
69  \DeclareBoolOption[true] {color}
70  \DeclareBoolOption[true] {conditionallox}
71  \DeclareBoolOption[true] {conditionalloxnewpage}
72  \DeclareBoolOption[false]{date}
73  \DeclareBoolOption[false]{glossaries}
74  \DeclareBoolOption[false]{index}
75  \DeclareBoolOption[true] {hyperref}
76  \DeclareBoolOption[false]{listings}
77  \DeclareBoolOption[false]{math}
78  \DeclareBoolOption[false]{plots}
79  \DeclareBoolOption[false]{tikz}
80  \DeclareBoolOption[false]{units}
81
```

```latex
82  %
83  \DeclareStringOption[english]{language}
84
85  % DLR options
86  \DeclareStringOption[FA-STM]{institute}
87  \DeclareStringOption[BS]{site}
88
89  % Options that are dependent of the position of hyperref
90  \DeclareBoolOption[false]{attachfile}
91  \DeclareBoolOption[false]{cleveref}
92
93  % any other options are passed to the base class
94  \DeclareDefaultOption{%
95    \ifthenelse{\equal{\stmtextbase@type}{article}}{%
96      \ifthenelse{\equal{\stmtextbase@layout}{standard}}{%
97        \PassOptionsToClass{\CurrentOption}{article}%
98      }{}%
99      \ifthenelse{\equal{\stmtextbase@layout}{dlr}}{%
100       \PassOptionsToClass{\CurrentOption}{dlrartcl}%
101     }{}%
102     \ifthenelse{\equal{\stmtextbase@layout}{koma}}{%
103       \PassOptionsToClass{\CurrentOption}{scrartcl}%
104     }{}%
105   }{}%
106 }
107 \DeclareDefaultOption{%
108   \ifthenelse{\equal{\stmtextbase@type}{report}}{%
109     \ifthenelse{\equal{\stmtextbase@layout}{standard}}{%
110       \PassOptionsToClass{\CurrentOption}{report}%
111     }{}%
112     \ifthenelse{\equal{\stmtextbase@layout}{dlr}}{%
113       \PassOptionsToClass{\CurrentOption}{dlrreprt}%
114     }{}%
115     \ifthenelse{\equal{\stmtextbase@layout}{koma}}{%
116       \PassOptionsToClass{\CurrentOption}{scrreprt}%
117     }{}%
118   }{}%
119 }
120 \DeclareDefaultOption{%
121   \ifthenelse{\equal{\stmtextbase@type}{book}}{%
122     \ifthenelse{\equal{\stmtextbase@layout}{standard}}{%
123       \PassOptionsToClass{\CurrentOption}{book}%
124     }{}%
125     \ifthenelse{\equal{\stmtextbase@layout}{dlr}}{%
```

```
126        \PassOptionsToClass{\CurrentOption}{dlrbook}%
127      }{}%
128      \ifthenelse{\equal{\stmtextbase@layout}{koma}}{%
129        \PassOptionsToClass{\CurrentOption}{scrbook}%
130      }{}%
131    }{}%
132  }
133
134  % Process options
135  \ProcessKeyvalOptions{stmtext}
136
137  % --------------------------
138  % Base class
139  % --------------------------
140
141  % Load screprt class
142
143  \ifthenelse{\equal{\stmtextbase@type}{article}}{%
144    \ifthenelse{\equal{\stmtextbase@layout}{standard}}{%
145      \LoadClass{article}
146    }{}%
147    \ifthenelse{\equal{\stmtextbase@layout}{dlr}}{%
148      \LoadClass{dlrartcl}
149    }{}%
150    \ifthenelse{\equal{\stmtextbase@layout}{koma}}{%
151      \LoadClass{scrartcl}
152    }{}%
153  }{}%
154  \ifthenelse{\equal{\stmtextbase@type}{report}}{%
155    \ifthenelse{\equal{\stmtextbase@layout}{standard}}{%
156      \LoadClass{report}
157    }{}%
158    \ifthenelse{\equal{\stmtextbase@layout}{dlr}}{%
159      \LoadClass{dlrreprt}
160    }{}%
161    \ifthenelse{\equal{\stmtextbase@layout}{koma}}{%
162      \LoadClass{scrreprt}
163    }{}%
164  }{}%
165  \ifthenelse{\equal{\stmtextbase@type}{book}}{%
166    \ifthenelse{\equal{\stmtextbase@layout}{standard}}{%
167      \LoadClass{book}
168    }{}%
169    \ifthenelse{\equal{\stmtextbase@layout}{dlr}}{%
```

```
170     \LoadClass{dlrbook}
171   }{}%
172   \ifthenelse{\equal{\stmtextbase@layout}{koma}}{%
173     \LoadClass{scrbook}
174   }{}%
175 }{}%
176
177 % --------------------------
178 % Commands for communality between document classes
179 % --------------------------
180
181 % Commands for the standard document classes
182 \ifthenelse{\equal{\stmtextbase@layout}{standard}}{%
183
184   \@ifundefined{subtitle}{    \def\subtitle#1{\gdef\
        @subtitle{#1} }%
185                                  \def\@subtitle{}}{}%
186
187 }{}%
188
189 % Commands for DLR document classes
190 \ifthenelse{\equal{\stmtextbase@layout}{dlr}}{%
191
192   \dlrinstitute{\stmtext@institute}%
193   \dlrsite      {\stmtext@site}%
194
195 }{}%
196
197 % Commands from RM-LaTeX that other classes need to
        understand
198 \ifthenelse{%
199   \equal{\stmtextbase@layout}{standard} \OR%
200   \equal{\stmtextbase@layout}{koma}%
201 }{%
202
203     % These commands are created to allow for an easy switch
            between
204     % dlrreprt and bootstrap_dlrreprt.
205
206     \@ifundefined{subject}{    \def\subject#1{\gdef\
        @subject{#1} }%
207                                  \def\@subject{}}{}%
208     \@ifundefined{keywords}{    \def\keywords#1{\gdef\
        @keywords{#1} }%
```

12

```latex
209                                        \def\@keywords{}}{}
210     \@ifundefined{restrictions}{\def\restrictions#1{\gdef\
            @restrictions{#1} }%
211                                        \def\@restrictions{}}{}
212     \@ifundefined{author}{       \def\author#1{\gdef\@author
            {#1} }%
213                                  \def\@author{}}{}
214     \@ifundefined{coauthor}{     \def\coauthor#1{\gdef\
            @coauthor{#1} }%
215                                  \def\@coauthor{}}{}
216     \@ifundefined{savedby}{      \def\savedby#1{\gdef\
            @savedby{#1} }%
217                                  \def\@savedby{}}{}
218     \@ifundefined{approvedby}{   \def\approvedby#1{\gdef\
            @approvedby{#1} }%
219                                  \def\@approvedby{}}{}
220     \@ifundefined{releasedby}{   \def\releasedby#1{\gdef\
            @releasedby{#1} }%
221                                  \def\@releasedby{}}{}
222     \@ifundefined{contactname}{ \def\contactname#1{\gdef\
            @contactname{#1} }%
223                                  \def\@contactname{}}{}
224     \@ifundefined{telnumber}{    \def\telnumber#1{\gdef\
            @telnumber{#1} }%
225                                  \def\@telnumber{}}{}
226     \@ifundefined{faxnumber}{    \def\faxnumber#1{\gdef\
            @faxnumber{#1} }%
227                                  \def\@faxnumber{}}{}
228     \@ifundefined{email}{        \def\email#1{\gdef\@email
            {#1} }%
229                                  \def\@email{}}{}
230     \@ifundefined{reportno}{     \def\reportno#1{\gdef\
            @reportno{#1} }%
231                                  \def\@reportno{}}{}
232
233     % From dlrinstitutes.sty
234     \@ifundefined{institute}{    \def\institute#1{\gdef\
            @institute{#1} }%
235                                  \def\@institute{}}{}
236     \@ifundefined{site}{         \def\site#1{\gdef\@site{#1}
            }%
237                                  \def\@site{}}{}
238
239     % The command for the second titlepage
```

```
240      \newcommand{\secondpage}{}%
241 }{
242
243   \RequirePackage{dlrsecondpage}
244
245 }
246
247 % -------------------------
248 % Modules
249 % -------------------------
250
251 \ifstmtext@color
252   \RequirePackage{stmcolors}
253 \fi
254
255 \ifstmtext@conditionallox
256   \RequirePackage[%
257     newpage={\ifstmtext@conditionalloxnewpage true\else
          false\fi},%
258   ]{stmconditionallox}
259 \fi
260
261 \ifstmtext@date
262   \RequirePackage{stmdate}
263 \fi
264
265 \ifstmtext@glossaries
266   \RequirePackage{stmglossaries}
267 \fi
268
269 \ifstmtext@index
270   \RequirePackage{stmindex}
271 \fi
272
273 %\ifstmtext@language
274   \PassOptionsToPackage{%
275     language=\stmtext@language,%
276   }{stmlanguage}%
277   \RequirePackage{stmlanguage}
278 %\fi
279
280 \ifstmtext@listings
281   \RequirePackage{stmlistings}
282 \fi
```

```latex
283
284  \ifstmtext@math
285    \RequirePackage{stmmath}
286  \fi
287
288  \ifstmtext@plots
289    \RequirePackage{stmplots}
290  \fi
291
292  \ifstmtext@tikz
293    \RequirePackage{stmtikz}
294  \fi
295
296  \ifstmtext@units
297    \RequirePackage{stmunits}
298  \fi
299
300  % --------------------------
301  % Coseoul to get a level-independent document structure
302  % --------------------------
303
304  \RequirePackage{coseoul}
305
306  \newcommand{\basetoclevelnr}[1]{#1}
307  \ifthenelse{\equal{\stmtextbase@type}{article}}{%
308    \renewcommand{\basetoclevelnr}{5}%
309  }{}%
310  \ifthenelse{\equal{\stmtextbase@type}{report}}{%
311    \renewcommand{\basetoclevelnr}{6}%
312  }{}%
313  \ifthenelse{\equal{\stmtextbase@type}{book}}{%
314    \renewcommand{\basetoclevelnr}{7}%
315  }{}%
316
317  \setcounter{currentlevel}{\basetoclevelnr}
318
319  % --------------------------
320  % Hyperref - make sure it is loaded as the last package
321  % --------------------------
322
323  \ifstmtext@hyperref
324    %\makeatletter
325
326    \@ifpackageloaded{etoolbox}{}{%
```

```latex
327         \RequirePackage{etoolbox}
328     }
329
330     %\AtBeginDocument{
331     \AtEndPreamble{
332
333         %
334         \RequirePackage{stmhyperrefsetup}
335
336         % Must be loaded after hyperref
337         \ifstmtext@attachfile
338             \RequirePackage{attachfile}
339         \fi
340
341         \ifstmtext@cleveref
342             \RequirePackage{cleveref}
343         \fi
344     }
345     %\makeatother
346 \else
347     \ifstmtext@attachfile
348         \RequirePackage{attachfile}
349     \fi
350
351     \ifstmtext@cleveref
352         \RequirePackage{cleveref}
353     \fi
354 \fi
355
356 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
357 % That's it                    %
358 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
359
360 % Finally, we'll use \endinput to indicate that LaTeX can
        stop reading this file. LaTeX will ignore anything after
        this line.
361 \endinput
```