The vutinfth class*

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Abstract

This class provides a LATeX 2ε template for theses at TU Wien Informatics. In the current version, bachelor and master theses as well as dissertations are supported in both English and German.

^{*}This document corresponds to vutinfth v1.13, dated 2024/05/29.

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Introduction 1

This class provides a LATEX 2ε template for all theses at TU Wien Informatics. Further information on the document class and accompanying support can be found at https://gitlab.com/ThomasAUZINGER/vutinfth. Further guidelines may apply to both the format and structure of certain theses. These can be found at https://informatics.tuwien.ac.at/study-services. Thesis authors are advised to consult Section 3 for a documentation of all relevant commands. Information for class developers is provided in Section 4.

2 Known Issues

This class is incompatible with the minitoc package as of version 60, due to the incompatibility of the underlying memoir class. Use the titletoc package as a replacement.

3 Usage for Document Authors

This section contains relevant information for authors of theses that are based on the vutinfth document class.

3.1 Data

To allow the generation of the title pages, signature fields, statements, etc., several pieces of information have to be set by the author using the commands in the subsequent sections. We discern several categories of data: (i) textual data, which is given by a simple text string, (ii) persons, which are defined by their names, optional titles, and their gender, as well as, (iii) dates and (iv) list data, which allow the selection of one argument from a list of permissible arguments. Several commands have polylingual capabilities and support different languages (see Section 3.1.5). A superscript P, i.e., \commandP, indicates such a command.

3.1.1Textual Data

\setfirstreviewerdata \setsecondreviewerdata

\setregnumber All commands in this section are called with one mandatory argument, e.g., as \settitle \command{\langle text\rangle}, where $\langle text \rangle$ defines the content of the commands. For polylin-\setsubtitle gual commands, given by \command^P, one $\langle text \rangle$ argument has to supplied for each \setcurriculum language (see Section 3.1.5). The following textual data can be set:

Command	Role	Type	Optional	
\setregnumber	Registration number of the author	All	No	
$\strut_{ m P}$	Title of the thesis	All	No	
$\$ setsubtitle $^{ m P}$	Subtitle of the thesis	All	Yes	
\setcurriculum ^P Name of the curriculum			No	
Types: Bachelor (B), Master (M), Doctoral (D), All (All)				

Command	Role	Type	Optional
\setfirstreviewerdata	Affiliation and country of first reviewer	D	No
\setsecondreviewerdata	Affiliation and country of second reviewer	D	No
Types: Bachelor (B), Master (M), Doctoral (D), All (All)			

3.1.2 Persons

\setauthor All commands in this section are called with four mandatory arguments, e.g., as $\$ \command{\langle pretitle \} {\langle name \} {\langle posttitle \} {\langle gender \rangle \}, where \langle name \rangle defines both \setsecondadvisor the first name(s) and family name(s) of the person. A title that is placed before \setfirstassistant the name is assigned with $\langle pretitle \rangle$, while a trailing title is given with $\langle posttitle \rangle$. \setsecondassistant Both $\langle pretitle \rangle$ and $\langle posttitle \rangle$ can be left empty, to indicate an absence of such \setthirdassistant a title; the insertion of appropriate glue between titles and names is handled by \setfirstreviewer the vutinfth class. The declaration of the persons gender via $\langle gender \rangle$ allows \setsecondreviewer the use of gender-specific terms in languages that support them, e.g., German. The possible options for $\langle gender \rangle$ are male and female (see Section 3.1.4). The following persons can be set:

Command	Role	Type	Optional	
\setauthor	Author of the thesis	All	No	
\setadvisor	Main advisor of the thesis	All	No	
\setsecondadvisor	Second advisor of the thesis	D	Yes	
\setfirstassistant	First advising assistant	B, M	Yes	
\setsecondassistant	Second advising assistant	B, M	Yes	
\setthirdassistant	Third advising assistant	B, M	Yes	
\setfirstreviewer	First thesis reviewer	D	No	
\setsecondreviewer	Second thesis reviewer	D	No	
Types: Bachelor (B), Master (M), Doctoral (D), All (All)				

Types: Bachelor (B), Master (M), Doctoral (D), All (All)

3.1.3 Dates

\setdate All commands in this section are called with three madatory arguments, e.g., as $\command{\langle day \rangle} {\langle month \rangle} {\langle year \rangle}.$ These commands derive from the \DTMsavedate command of the datetime2 package. The following dates can be set:

Command	Role	Type	Optional
\setdate	Signing date	All	No
Types: Bac	helor (B), Mast	er (M),	Doctoral (D), All (All)

3.1.4 List Data

All commands in this section are called with at least one madatory argument called $\langle list \rangle$, e.g., as \command... $\{\langle list \rangle\}$..., where $\langle list \rangle$ is given one element from a set of possible arguments.

When setting a person, the person's gender is specified with a list argument (see \setauthor \setadvisor

Section 3.1.2):

Command	Options	Description
	male female	Specifies a male person. Specifies a female person.

No pronouns are generated based on the gender choice and it should be chosen in a way to reflect the preferred use of nouns (e.g., Autor or Autorin in German).

\setthesis The thesis type is selected from one of the fundamental types:

Command	Options	Description
\setthesis $\{\langle list \rangle\}$	bachelor master doctor	Specifies a bachelor's thesis. Specifies a master's thesis. Specifies a dissertation.

\setmasterdegree With a master's curriculum, different degrees can be achieved and the appropriate type has to be chosen based on the curriculum that the author is enrolled in:

Command	Options	Description
\setmasterdegree $\{\langle list \rangle\}$	dipl.	Specifies the degree 'Diplom-Ingenieur(in)'.
	master	Specifies the degree 'Master of Science'.
	rer.nat.	Specifies the degree 'Magist(er/ra) der Natur- wissenschaften'
	rer.soc.oec.	Specifies the degree 'Magist(er/ra) der Sozial- und Wirtschaftswissenschaften'.

\setdoctordegree With a doctorate study, different degrees can be achieved and the appropriate type has to be chosen based on the program that the author is enrolled in:

Command	Options	Description
\setdoctordegree $\{\langle list \rangle\}$	techn.	Specifies the degree 'Doktor(in) der Technischen' Wissenschaften'.
	rer.nat.	Specifies the degree 'Doktor(in) der Naturwissenschaften'.
	rer.soc.oec.	Specifies the degree 'Doktor(in) der Sozial- und Wirtschaftswissenschaften'.

3.1.5 Polylingual Data

\setcurriculum Used as \setcurriculum{ $\langle english \rangle$ }{ $\langle german \rangle$ }, it sets the name of the curriculum that the student is enroled in. The name can be given in English, with $\langle english \rangle$, and in German, with $\langle german \rangle$. Note that the curriculum name does

not need to be supplied for all thesis types, since, e.g., doctoral studies do not have a curriculum per se. If a title page of one of the languages is not used, the corresponding argument can be left empty.

\settitle Used as \settitle{\langle english\}}{\langle german\}}, it sets the title of the thesis. The title can be given both in an English version, with $\langle english\rangle$, and in a German version, with $\langle german\rangle$. For title pages in a given language, the corresponding title will be used. Unused languages can be supplied as empty brackets and it is possible to use the English or German title for both language versions.

\setsubtitle Used as \setsubtitle{ $\langle english \rangle$ }{ $\langle german \rangle$ }, it sets the subtitle of the thesis. The same specifications as for \settitle apply.

\addtitlepage The titlepage can be generated in the following languages (see Section 3.2):

Command	Options	Description
$\verb $	english naustrian	Generates an English title page. Generates a German title page.

3.2 Layout

Most of the data that is supplied with the commands of the previous sections is used to generate the front matter of the thesis. It consists of obligatory items such as the title page(s) and the statement of originality as well as optional items such as the acknowledgements or the abstract in different languages. In the remainder of this section, the available items of the front matter are given.

\addtitlepage Used as \addtitlepage{ $\langle lang \rangle$ }, where $\langle lang \rangle$ is the name of a language as given in the babel package (see Section 3.1.4). The necessary pieces of information have to be set beforehand (as described in Section 3.1). This command is usually used directly after \begin{document} \frontmatter.

\addstatementpage Used as \addstatementpage, it generates a page with the statement of originality.

acknowledgements (env.) Used as \begin{acknowledgements} \langle text \end{acknowledgements}, this enviacknowledgements* (env.) ronment generates a chapter with the English acknowledgements. Use the starred version, i.e., acknowledgements*, to remove the table of content entry of this environment.

danksagung (env.) Used as $\begin{danksagung}{(text)}\end{danksagung}$, this environment gener-danksagung* (env.) ates a chapter with the German acknowledgements. Use the starred version, i.e., danksagung*, to remove the table of content entry of this environment.

abstract (env.) Used as \begin{abstract}\\text\\end{abstract}, this environment generates a abstract* (env.) chapter with the English abstract. Use the starred version, i.e., abstract*, to remove the table of content entry of this environment.

kurzfassung (env.) Used as $\ensuremath{\texttt{begin}\{kurzfassung}\ensuremath{\texttt{kurzfassung}\}}$, this environment genkurzfassung* (env.) erates a chapter with the German abstract. Use the starred version, i.e., kurzfassung*, to remove the table of content entry of this environment.

Usage for Class Writers 4

To accommodate shifting requirements, the vutinfth class provides various convenience functions that allow the modification and extension of its functionality.

4.1 Data

To compose several parts of the thesis layout, input from the thesis author is required. For the vutinfth class, this is realized by the commands provided in Section 3.1. Additional data can be defined with the the commands in the remainder of this section.

\CreateData Used as \CreateData $\{\langle name \rangle\}$, it generates a command \set $\langle name \rangle$. Used as $\$ \set $\langle name \rangle \{\langle strinq \rangle \}$, the newly created command assigns the value $\langle strinq \rangle$ to the internal variable $\forall utinfth@data@(name)$. The variable is initialized with an error value to alert the user of the fact that $\langle string \rangle$ was not supplied via the $\$ \set(name) command. Furthermore, a command \vutinfth@data@(name)@def is created, to increase source code readability when verifying the existence of a specific data item. See Section 5.2.6 for examples.

\CreatePerson Used as \CreatePerson $\{\langle name \rangle\}$, it generates a command \set $\langle name \rangle$. Used as $\set\langle name\rangle \{\langle pretitle\rangle\} \{\langle personname\rangle\} \{\langle posttitle\rangle\} \{\langle gender\rangle\}$, the newly created command assigns the supplied values to the corresponding internal variables \vutinfth@person@ $\langle name \rangle$ @...as given in the table below.

Argument	Internal Variable
	$\verb \vutinfth@person@ \langle name \rangle @ \texttt{def}$
$\langle pretitle \rangle$	$\verb \vutinfth@person@ \langle name \rangle @ \texttt{pretitle} $
$\langle personname \rangle$	$\verb \vutinfth@person@ \langle name \rangle @ \texttt{name} $
$\langle posttitle \rangle$	$\verb \vutinfth@person@ \langle name \rangle \\ @posttitle$
$\langle gender \rangle$	$\verb \vutinfth@person@ \langle name \rangle @gender $

The command \vutinfth@person@\(name\)@def is created to increase source code readability when verifying the existence of a specific person. Furthermore, the command \vutinfth@person@\(\(name\)\) @fullname returns the person's name together with existing titles and correct whitespace in between. The person's gender is either \vutinfth@person@male or \vutinfth@person@female, depending on the input. See Section 5.2.6 for examples.

\AddLanguage Used as \AddLanguage{ $\langle lang \rangle$ }, it enables the language $\langle lang \rangle$ to by used by polylingual expressions. $\langle lanq \rangle$ has to be chosed from the languages of the babel package that is used by this class. Currently, vutinfth uses two languages, i.e., english for English expressions and naustrian for German expressions.

 $\$ CreatePolylingual Used as $\$ CreatePolylingual[(expressions)] {(name)}, it generates a command \vutinfth@polylingual@\(name\)\) that selects the approriate expression based on the current language at the time of use. The argument $\langle expressions \rangle$ is a list of elements of the form $\langle expr_i \rangle$, where each element defines the expression for a valid language, e.g., $\langle lanq_i \rangle = \langle text_i \rangle$. $\langle lanq_i \rangle$ has to be chosen from the languages that were defined via \AddLanguage. As a convention, text that needs to start with an uppercase letter is assigned to a name that starts with an uppercase letter. The

same holds for uppercase words, e.g.,

\CreatePolylingual[english=advisor,naustrian=Betreuer]{advisor}\CreatePolylingual[english=Advisor,naustrian=Betreuer]{Advisor}\CreatePolylingual[english=ADVISOR,naustrian=BETREUER]{ADVISOR}. See Section 5.2.6 for examples.

4.2 Layout

Several key elements in the layout of the frontmatter are encapsulated to allow a convenient extension of this functionality.

\SignatureFields Used as \SignatureFields[\langle mode \rangle] \{\langle center \rangle}\{\langle right \rangle \rangle}, it creates a place and date description and/or one or two signature fields. \langle mode \rangle can be set to y, which adds an entry with date and place to the left, to h, which adds the corresponding whitespace, or to n, which adds nothing. If text is supplied to $\langle center \rangle$, it is added below a rule, right to the possible date and place entry. If text is supplied to $\langle right \rangle$, it is added below a rule, right to the possible signature field created by $\langle center \rangle$. This command ensures a uniform width and positioning of the signature fields on both the title pages and the statement of originality.

\SignatureBlock Used as \SignatureBlock, it generates the signature fields for both author and advisor.

\ReviewerBlock Used as \ReviewerBlock, it generates the signature fields for both reviewers.

\AdvisorBlock Used as \AdvisorBlock, it generates the name fields for both the advisor and the potential assistants.

\AddTitlePage Used as \AddTitlePage, it generates a title page in the current language. This command contains the placement of the header graphics, the footer, the appropriate blocks, etc.

\AddStatementPage Used as \AddStatementPage, it generates a chapter with the statement of originality together with the author's signature field.

SFFont (env.) Alters the sans serif font inside the environment. Called with one mandatory argument as $\begin{SFFont}{\langle family \rangle}$, which determines the sans serif font family that should be used, e.g., phv for Helvetica.

5 Implementation

5.1 Initialization

5.1.1 Class Options

Pass the options to the underlying memoir class.

- 1 \DeclareOption*{%
- 2 \PassOptionsToClass{\CurrentOption}{memoir}%
- 3 }%
- 4 \ProcessOptions\relax

5.1.2 Loaded Class and Packages

The vutinfth class is based on the memoir class.

```
5 \LoadClass[a4paper,11pt]{memoir}% 6 \chapterstyle{veelo}%
```

The following packages are required for the functionality and style of the document class.

```
7 \RequirePackage[scaled]{helvet}%
8 \RequirePackage{lmodern}%
9 \RequirePackage{courier}%
10 \RequirePackage[T1]{fontenc}%
11 \RequirePackage[english,naustrian]{babel}%
12 \RequirePackage[useregional]{datetime2}%
13 \RequirePackage{geometry}%
14 \RequirePackage{calc}%
15 \RequirePackage{etoolbox}%
16 \RequirePackage{graphicx}%
17 \graphicspath{{graphics}/}}%
```

5.1.3 Low-Level Functionality

This section provides low-level functionality for macro definitions and macro expansions.

\@namexdef Globally defines a control sequence with an expanded argument.

```
18 \end{\csname} {\tt 18 \newcommand{\csname}} {\tt 18 \newc
```

\ifestrequal A variant of \ifstrequal that fully expands the first two arguments.

```
19 \newcommand{\ifestrequal}[4]{%
20 \begingroup
21 \edef\vutinfth@tempa{{#1}}%
22 \edef\vutinfth@tempb{{#2}}%
23 \expandafter\expandafter\ifstrequal
24 \expandafter\vutinfth@tempa\vutinfth@tempb{#3}{#4}%
25 \endgroup
26 }%
```

5.1.4 Fonts

SFFont (env.) Selects the given font family as sans serif font.

33 \newenvironment{SFFont}[1]{%

Stores the current sans serif font in \vutinfth@f@family@tmp and changes to the given sans serif font.

```
34 \begingroup
35 \sffamily
36 \global\let\vutinfth@f@family@tmp=\f@family
37 \endgroup
38 \renewcommand{\sfdefault}{#1}%
```

In case the outer scope is already sans serif, the new font has to be activated.

```
39 \ifdefstrequal{\f@family}{\vutinfth@f@family@tmp}{\sffamily}{}% 40 }{%
```

The scope of the font change is the environment itself. Thus, no cleanup code is required in case the outer scope was already sans serif.

```
41 \renewcommand{\sfdefault}{\vutinfth@f@family@tmp}% 42 }%
```

5.2 Data

5.2.1 Dates

\setdate Creates the internal storage for the signing date.

```
43 \newcommand{\setdate}[3]{%
44 \DTMsavedate{vutinfth@date@signing}{#3-#2-#1}%
45 }%
```

5.2.2 Textual Data

\vutinfth@def@data Creates the internal storage for simple data entries.

```
46 \newcommand{\vutinfth@def@data}[2]{%
47 \@namedef{vutinfth@data@#1@def}{}%
48 \@namedef{vutinfth@data@#1}{#2}%
49 }%
```

\vutinfth@def@data@invalid Initializes the internal storage with error messages.

```
50 \newcommand{\vutinfth@def@data@invalid}[2]{%
51 \@namedef{vutinfth@data@#1@error}{%
52 \ClassError{vutinfth}{No #2 issued}{Set #1 with #2.}%
53 }%
54 \@namedef{vutinfth@data@#1}{\@nameuse{vutinfth@data@#1@error}}%
55 }%
```

\CreateData Issues the construction of a setter function for a data entry given by \setdata.

```
56 \newcommand{\CreateData}[1]{\%
57 \Qnamedef{\set#1}##1{\%
58 \vutinfth\Qdef\Qdata{\#1}{\##1}\%
```

```
59 }%
60 \vutinfth@def@data@invalid{#1}{\string\set#1}%
61 }%
```

5.2.3 Persons

\vutinfth@person@male \vutinfth@person@female

\vutinfth@person@male Two genders are differentiated for each person: male and female.

```
62 \newcommand{\vutinfth@person@male}{male}%
63 \newcommand{\vutinfth@person@female}{female}%
```

\ifmale Convenience macros to determine the gender of a person.

```
\iffemale Convenience macros to determine the gender of a person.

64 \newcommand{\ifmale}[2]{%

65 \ifcsstring{vutinfth@person@#1@gender}{\vutinfth@person@male}{#2}{}%

66 }%

67 \newcommand{\iffemale}[2]{%

68 \ifcsstring{vutinfth@person@#1@gender}{\vutinfth@person@female}{#2}{}%

69 }%
```

\vutinfth@def@person Creates the internal storage for a person's name, titles and gender.

```
70 \newcommand{\vutinfth@def@person}[5]{%
    \@namedef{vutinfth@person@#1@def}{}%
71
    \@namedef{vutinfth@person@#1@pretitle}{#2}%
72
73
    \@namedef{vutinfth@person@#1@name}{#3}%
74
    \@namedef{vutinfth@person@#1@posttitle}{#4}%
    \ifdefstring{\vutinfth@person@male}{#5}{%
75
      \@namedef{vutinfth@person@#1@gender}{\vutinfth@person@male}%
76
77
    \ifdefstring{\vutinfth@person@female}{#5}{%
78
      \Onamedef{vutinfthOpersonO#1Ogender}{\vutinfthOpersonOfemale}%
79
80
    }{}%
```

For the full name, additional spaces have to be inserted depending on the presence of pre- or posttitles.

```
\ifstrempty{#3}{%
81
      \ifstrempty{#2}{%
82
        \@namedef{vutinfth@person@#1@fullname}{#4}%
83
      }{%
84
         \ifstrempty{#4}{%
85
           \@namedef{vutinfth@person@#1@fullname}{#2}%
86
87
        }{%
           \@namedef{vutinfth@person@#1@fullname}{#2 #4}%
88
89
        }%
90
      }%
91
    }{%
      \ifstrempty{#2}{%
92
        \ifstrempty{#4}{%
93
           \@namedef{vutinfth@person@#1@fullname}{#3}%
94
95
           \@namedef{vutinfth@person@#1@fullname}{#3, #4}%
96
        }%
```

```
}{%
98
          \ifstrempty{#4}{%
99
            \@namedef{vutinfth@person@#1@fullname}{#2 #3}%
100
101
            \Onamedef{vutinfthOpersonO#1Ofullname}{#2 #3, #4}%
102
         }%
103
       }%
104
105
     }%
106 }%
```

\vutinfth@def@person@invalid Initializes the internal storage with error messages.

```
107 \newcommand{\vutinfth@def@person@invalid}[2]{%
108
     \@namedef{vutinfth@person@#1@error}{%
       \ClassError{vutinfth}{No #2 issued}{Set #1 with #2.}%
109
110
     \@namedef{vutinfth@person@#1@name}{%
111
       \@nameuse{vutinfth@person@#1@error}}%
112
113
     \@namedef{vutinfth@person@#1@pretitle}{%
       \@nameuse{vutinfth@person@#1@error}}%
114
     \@namedef{vutinfth@person@#1@posttitle}{%
115
       \@nameuse{vutinfth@person@#1@error}}%
116
     \Onamedef{vutinfthOpersonO#1Ogender}{%
117
       \@nameuse{vutinfth@person@#1@error}}%
118
119
     \@namedef{vutinfth@person@#1@fullname}{%
       \@nameuse{vutinfth@person@#1@error}}%
120
121 }%
```

\CreatePerson Issues the construction of a setter function for a person given by \setperson.

```
122 \newcommand{\CreatePerson}[1]{%
123 \Qnamedef{set#1}##1##2##3##4{%
124 \vutinfthQdefQperson{#1}{##1}{##2}{##3}{##4}%
125 }%
126 \vutinfthQdefQpersonQinvalid{#1}{\string\set#1}%
127 }%
```

5.2.4 Polylingual Text

This class supports bi- and polylingual text via a key-value mechanism. See the \CreatePolylingual command further down for the actual definition of polylingual expressions.

\AddLanguage Constructs the temporary variables and the permanent storage for polylingual text in the given language.

```
128 \newcommand{\AddLanguage}[1]{%
```

First, the key for the current language, given by its name in the babel package, is created. Keys of the keyval package are internally stored as KV@family@keyname, where we use vutinfth as family name and the argument as key name. The value that is given to this key as part of a function argument is assigned to a temporary storage.

```
129 \@namedef{KV@vutinfth@#1}##1{%
130 \@namedef{vutinfth@current@#1}{##1}%
131 }%
```

The key value is initialized as empty.

```
132 \@nameuse{KV@vutinfth@#1}{}%
```

The transfer from temporary to permanent storage is achieved by adding code to the already existing transfer routine. This causes each new language to issue the transfer for the previously defined language.

```
133 \ifundef{\vutinfth@allocate@polylingual}{%
```

Define the transfer function, if it has not been defined so far.

Store the current transfer function via \let to allow recursion.

```
136 \@namelet{vutinfth@allocate@polylingual@#1}%137 \vutinfth@allocate@polylingual
```

Define the transfer function to permanent storage.

```
138 \renewcommand{\vutinfth@allocate@polylingual}[1]{%
```

Call the transfer routine of the previously defined language.

```
139 \@nameuse{vutinfth@allocate@polylingual@#1}{##1}%
```

To define the permanent storage, **\@namexdef** is used the definition's scope has to be global.

```
140 \@namexdef{vutinfth@##1@#1}{%
141 \ifcsempty{vutinfth@current@#1}{%
```

In draft mode we mark unassigned languages, i.e., polylingual expression that were not defined for a language that is in use when the polylingual expression is called.

The use of \@namexdef expands the content of the temporary storage before assigning it to the permanent one.

```
148 \@nameuse{vutinfth@current@#1}%
149 }%
150 }%
151 }%
```

At time of usage, the language, which is given as an argument, is checked against the currently active language.

152 \ifundef{\vutinfth@selectlanguage@polylingual}{%

Define the language selection function, if it has not been defined so far.

```
153 \newcommand{\vutinfth@selectlanguage@polylingual}[1]{\@empty}% 154 \}{}%
```

Store the current selection function via \let to allow recursion.

```
155 \@namelet{vutinfth@selectlanguage@polylingual@#1}%
156 \vutinfth@selectlanguage@polylingual
```

Define the selection function.

```
157 \renewcommand{\vutinfth@selectlanguage@polylingual}[1]{%
```

Call the selection routine of the previously defined language.

```
158 \@nameuse{vutinfth@selectlanguage@polylingual@#1}{##1}%
```

The currently active language is given by \languagename. If it matches the language, which was supplied as the argument, the content of the current permanent storage is returned.

```
159 \ifdefstring{\languagename}{#1}{\@nameuse{vutinfth@##1@#1}}{}% 160 }% 161}%
```

\CreatePolylingual Creates the actual polylingual expressions.

```
162 \newcommand{\CreatePolylingual}[2][]{%
163 \begingroup
```

The key-value pairs of the optional argument define the text that is returned for the respective languages. We use vutinfth as the family name for the keys.

```
164 \setkeys{vutinfth}{#1}%
```

Each key was already assigned a temporary storage, whose content has to be transfered to permanent storage.

```
165 \vutinfth@allocate@polylingual{#2}%
166 \endgroup
```

The mandatory argument $\{\langle arg \rangle\}$ is used to define the macro that returns the appropriate text for the currently active language.

```
167 \@namedef{vutinfth@polylingual@#2}{%
168 \vutinfth@selectlanguage@polylingual{#2}}%
169 }%
```

5.2.5 Thesis Types

```
Othesis Chasetype Cundergraduate Two thesis categories are differentiated: undergraduate and graduate.
{\tt infth@thesis@basetype@graduate}
                                                                                                     170 \newcommand{\vutinfth@thesis@basetype@undergraduate}{%
                                                                                                    171 vutinfth@undergraduate}%
                                                                                                     172 \newcommand{\vutinfth@thesis@basetype@graduate}{%
                                                                                                    173 vutinfth@graduate}%
                                            \ifundergraduate Convenience macros to determine the category of the selected thesis type.
                                                             \ifgraduate
                                                                                                    174 \newcommand{\ifundergraduate}[1]{%
                                                                                                                   \ifestrequal{\vutinfth@thesis@basetype}{%
                                                                                                                           \vutinfth@thesis@basetype@undergraduate
                                                                                                    176
                                                                                                    177
                                                                                                                   }{#1}{}%
                                                                                                    178 }%
                                                                                                    179 \newcommand{\ifgraduate}[1]{%
                                                                                                                    \ifestrequal{\vutinfth@thesis@basetype}{%
                                                                                                     180
                                                                                                                           \vutinfth@thesis@basetype@graduate
                                                                                                     182
                                                                                                                    }{#1}{}%
                                                                                                     183 }%
              \vutinfth@thesis@basetype Initialize the thesis category, the type and the specific degree with error messages.
       \vutinfth@thesis@thesisname
                                                                                                    184 \newcommand{\vutinfth@thesis@basetype}{%
       \vutinfth@thesis@degreename
                                                                                                     185
                                                                                                                    \ClassError{vutinfth}{No \string\setthesis \space issued}{%
                                                                                                     186
                                                                                                                            Set thesis type with \string\setthesis.}%
                                                                                                    187 }%
                                                                                                    188 \newcommand{\vutinfth@polylingual@degreename}{%
                                                                                                                     \ClassError{vutinfth}{No \string\setthesis \space issued}{%
                                                                                                    189
                                                                                                                            Set thesis type with \string\setthesis.}%
                                                                                                    190
                                                                                                     191 }%
                                                                                                     192 \newcommand{\vutinfth@polylingual@thesisname}{%
                                                                                                                    \ClassError{vutinfth}{No \string\setthesis \space issued}{%
                                                                                                                            Set thesis type with \string\setthesis.}%
                                                                                                     195 }%
              \vutinfth@thesis@bachelor Three main thesis types are differentiated: bachelor, master, and doctor.
                     \vutinfth@thesis@master
                     \verb|\vutinfth@thesis@doctor|| 196 \\ | \text{newcommand}{\text{\wutinfth@thesis@bachelor}}{\text{\wormand}}| \\ | \text{\wormand}{\text{\wormand}}| \\ | \text{\wormand}| \\ | \text{\wor
                                                                                                     197 \newcommand{\vutinfth@thesis@master}{master}%
                                                                                                     198 \newcommand{\vutinfth@thesis@doctor}{doctor}%
                                               \Osetthesisname Internal convenience macros.
                                               \@setdegreename
                     \label{lem:command} $$ \ensuremath{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\c
                                                                                                                  \renewcommand{\vutinfth@polylingual@thesisname}{#1}}%
                                                                                                    200
                                                                                                    201 \newcommand{\@setdegreename}[1]{%
                                                                                                    203 \newcommand{\@setgendereddegreename}[2]{%
                                                                                                                    \ifmale{author}{\@setdegreename{#1}}%
                                                                                                                    \iffemale{author}{\@setdegreename{#2}}%
                                                                                                    205
```

206 }%

```
\setthesis Sets the thesis type.
                            207 \newcommand{\setthesis}[1]{%
                                 Initializes bachelor thesis type.
                                   \renewcommand{\vutinfth@thesis@basetype}{%
                            209
                                    \vutinfth@thesis@basetype@undergraduate}%
                            210
                                   \@setthesisname{\vutinfth@polylingual@BACHELORTHESIS}%
                            211
                            212
                                   \@setdegreename{\vutinfth@polylingual@Bdeg}%
                            213
                                }{}%
                                 \ifdefstring{\vutinfth@thesis@master}{#1}{%
                            214
                            Initializes master thesis type.
                                   \renewcommand{\vutinfth@thesis@basetype}{%
                            215
                                     \vutinfth@thesis@basetype@undergraduate}%
                            216
                                   \@setthesisname{%
                            217
                            218
                                    \ClassError{vutinfth}{No \string\setmasterdegree \space issued}{%
                            219
                                      Set masterdegree with \string\setmasterdegree.}%
                            220
                            221
                                   \@setdegreename{%
                                     222
                                      Set master degree with \string\setmasterdegree.}%
                            223
                            224
                                   }%
                            225
                                }{}%
                                 \ifdefstring{\vutinfth@thesis@doctor}{#1}{%
                            Initializes doctor thesis type.
                                   \renewcommand{\vutinfth@thesis@basetype}{%
                            227
                                    \vutinfth@thesis@basetype@graduate}%
                            228
                                   \@setthesisname{\vutinfth@polylingual@DOCTORTHESIS}%
                            229
                                   \@setdegreename{%
                            230
                                    \ClassError{vutinfth}{No \string\setdoctordegree \space issued}{%
                            231
                                      Set doctor degree with \string\setdoctordegree.}%
                            234
                                }{}%
                            235 }%
   \vutinfth@thesis@mdeg@dipl Four master degrees can be selected: dipl., master, rer.nat., and
 \vutinfth@thesis@mdeg@master rer.soc.oec..
 \vutinfth@thesis@mdeg@rernat
237 \newcommand{\vutinfth@thesis@mdeg@master}{master}%
                            238 \newcommand{\vutinfth@thesis@mdeg@rernat}{rer.nat.}%
                            239 \newcommand{\vutinfth@thesis@mdeg@rersocoec}{rer.soc.oec.}%
            \setmasterdegree Sets the specific master degree.
                            240 \newcommand{\setmasterdegree}[1]{%
                                \ifdefstring{\vutinfth@thesis@mdeg@dipl}{#1}{%
                            241
                                   \@setthesisname{\vutinfth@polylingual@DIPLOMATHESIS}%
                            242
```

\@setgendereddegreename{%

243

```
\vutinfth@polylingual@MdegDiplMale
                                244
                                       }{%
                                245
                                          \verb|\vutinfth@polylingual@MdegDiplFemale| \\
                                246
                                        }%
                                247
                                248
                                      }{}%
                                      \ifdefstring{\vutinfth@thesis@mdeg@master}{#1}{%
                                249
                                        \@setthesisname{\vutinfth@polylingual@MASTERTHESIS}%
                                250
                                251
                                        \@setdegreename{\vutinfth@polylingual@MdegMaster}%
                                252
                                      }{}%
                                      \ifdefstring{\vutinfth@thesis@mdeg@rernat}{#1}{%
                                253
                                        \@setthesisname{\vutinfth@polylingual@MASTERTHESIS}%
                                254
                                        \@setgendereddegreename{%
                                255
                                          \vutinfth@polylingual@MdegRerNatMale
                                256
                                257
                                        }{%
                                          \vutinfth@polylingual@MdegRerNatFemale
                                258
                                259
                                      }{}%
                                260
                                      \ifdefstring{\vutinfth@thesis@mdeg@rersocoec}{#1}{%
                                261
                                        \@setthesisname{\vutinfth@polylingual@MASTERTHESIS}%
                                262
                                        \@setgendereddegreename{%
                                263
                                          \vutinfth@polylingual@MdegRerSocOecMale
                                264
                                265
                                266
                                          \vutinfth@polylingual@MdegRerSocOecFemale
                                267
                                        }%
                                268
                                     }{}%
                                269 }%
 \vutinfth@thesis@ddeg@rernat Three doctor degrees can be selected: rer.nat., techn., and rer.soc.oec..
                                270 \newcommand{\vutinfth@thesis@ddeg@rernat}{rer.nat.}%
vutinfth@thesis@ddeg@rersocoec
                                271 \newcommand{\vutinfth@thesis@ddeg@techn}{techn.}%
                                272 \newcommand{\vutinfth@thesis@ddeg@rersocoec}{rer.soc.oec.}%
              \setdoctordegree Sets the specific doctor degree.
                                273 \newcommand{\setdoctordegree}[1]{%
                                      \ifdefstring{\vutinfth@thesis@ddeg@rernat}{#1}{%
                                275
                                        \@setgendereddegreename{%
                                          \verb|\vutinfth@polylingual@DdegRerNatMale| \\
                                276
                                        }{%
                                277
                                          \vutinfth@polylingual@DdegRerNatFemale
                                278
                                279
                                       }%
                                280
                                      }{}%
                                      \ifdefstring{\vutinfth@thesis@ddeg@techn}{#1}{%
                                281
                                        \@setgendereddegreename{%
                                282
                                          \vutinfth@polylingual@DdegTechnMale
                                283
                                284
                                        }{%
                                          \verb|\vutinfth@polylingual@DdegTechnFemale| \\
                                285
                                       }%
                                286
                                      }{}%
                                287
                                      \ifdefstring{\vutinfth@thesis@ddeg@rersocoec}{#1}{%
                                288
                                        \@setgendereddegreename{%
                                289
                                          \vutinfth@polylingual@DdegRerSocOecMale
                                290
                                291
                                        }{%
```

\vutinfth@thesis@ddeg@techn

```
292 \vutinfth@polylingual@DdegRerSocOecFemale
293 }%
294 }{}%
295 }%
```

5.2.6 Declarations

Textual Data Creates the required textual data entries.

```
296 % ^^A\CreateData{address}%
297 \CreateData{regnumber}%
298 \CreateData{firstreviewerdata}%
299 \CreateData{secondreviewerdata}%
```

Persons Creates the required person entries.

```
300 \CreatePerson{author}%
301 \CreatePerson{advisor}%
302 \CreatePerson{secondadvisor}%
303 \CreatePerson{firstassistant}%
304 \CreatePerson{secondassistant}%
305 \CreatePerson{thirdassistant}%
306 \CreatePerson{firstreviewer}%
307 \CreatePerson{secondreviewer}%
```

Languages Adds the desired languages to the polylingual expressions. All added languages have to be given as arguments to the babel package.

```
308 \AddLanguage{english}% 309 \AddLanguage{naustrian}%
```

PolyLinguals Creates the polylingual expressions.

```
310 \CreatePolylingual[
311 english=Advisor,
312 naustrian=Betreuung]{Advisor}%
313 \CreatePolylingual[
314 english=Second advisor,
315 naustrian=Zweitbetreuung]{Secondadvisor}%
316 \CreatePolylingual[
317 english=submitted in partial fulfillment of the requirements
       for the degree of,
318
319 naustrian=zur Erlangung des akademischen Grades]{submission}%
320 \CreatePolylingual[
321 english=in,
    naustrian=im Rahmen des Studiums]{in}%
323 \CreatePolylingual[
324 english=by,
325 naustrian=eingereicht von]{by}%
326 \CreatePolylingual[
327 english=Registration Number,
328 naustrian=Matrikelnummer]{Registrationnumber}%
329 \CreatePolylingual[
330 english=to the Faculty of Informatics,
```

```
naustrian=an der Fakult\"at f\"ur Informatik]{faculty}%
331
332 \CreatePolylingual[
    english=at the TU Wien,
333
    naustrian=der Technischen Universit\"at Wien]{university}%
334
335 \CreatePolylingual[
     english=Assistance,
     naustrian=Mitwirkung]{Assistance}%
338 \CreatePolylingual[
     english=The dissertation has been reviewed by:,
339
     naustrian=Diese Dissertation haben begutachtet:]{Reviewed}%
340
341 \CreatePolylingual[
     english=External reviewers:]{Reviewers}%
342
343 \CreatePolylingual[
     english=Vienna,
344
     naustrian=Wien]{Place}%
345
346 \CreatePolylingual[
     english=Declaration of Authorship,
     naustrian=Erkl\"arung zur Verfassung der Arbeit]{StatementChapter}%
348
349 \CreatePolylingual[
     english={I hereby declare that I have written this Doctoral Thesis
350
351
       independently, that I have completely specified the utilized
       sources and resources and that I have definitely marked all parts
352
       of the work - including tables, maps and figures - which belong
353
       to other works or to the internet, literally or extracted, by
354
355
       referencing the source as borrowed.},
356
     naustrian={Hiermit erkl\"are ich, dass ich diese Arbeit
       selbst\"andig verfasst habe, dass ich die verwendeten Quellen
357
       und Hilfsmittel vollst\"andig angegeben habe und dass ich die
358
       Stellen der Arbeit -- einschlie{\ss}lich Tabellen, Karten und
359
360
       Abbildungen --, die anderen Werken oder dem Internet im Wortlaut
       oder dem Sinn nach entnommen sind, auf jeden Fall unter Angabe
361
       der Quelle als Entlehnung kenntlich gemacht habe.}]{Statement}%
362
363 \CreatePolylingual[
     english={I further declare that I have used generative AI tools only as an aid,
364
      and that my own intellectual and creative efforts predominate in this
365
      work. In the appendix ''Overview of Generative AI Tools Used'' I have
366
367
      listed all generative AI tools that were used in the creation of this
      work, and indicated where in the work they were used. If whole passages
369
      of text were used without substantial changes, I have indicated the
370
      input (prompts) I formulated and the IT application used with its
371
      product name and version number/date.},
372
     naustrian={Ich erkl\"are weiters, dass ich mich generativer KI-Tools lediglich als
      Hilfsmittel bedient habe und in der vorliegenden Arbeit mein
373
      {\tt gestalterischer~Einfluss~"uberwiegt.~Im~Anhang~\glqq"Ubersicht~verwendeter}
374
375
      Hilfsmittel\grqq\ habe ich alle generativen KI-Tools gelistet, die verwendet
      wurden, und angegeben, wo und wie sie verwendet wurden. F\"ur
376
377
      Textpassagen, die ohne substantielle \"Anderungen \"ubernommen wurden, habe
      ich jeweils die von mir formulierten Eingaben (Prompts) und die
378
      verwendete IT-Anwendung mit ihrem Produktnamen und Versionsnummer/Datum
379
380
      angegeben.}]{AIStatement}%
381 \CreatePolylingual[
382
     english=Overview of Generative AI Tools Used,
```

naustrian=Übersicht verwendeter Hilfsmittel]{AIToolsChapter}%

383

Degree titles.

```
384 \CreatePolylingual[
     english=Bachelor of Science,
385
     naustrian=Bachelor of Science]{Bdeg}%
386
387 \CreatePolylingual[
     english=Master of Science,
     naustrian=Master of Science]{MdegMaster}%
389
390 \CreatePolylingual[
     english=Diplom-Ingenieur,
391
     naustrian=Diplom-Ingenieur]{MdegDiplMale}%
392
393 \CreatePolylingual[
     english=Diplom-Ingenieurin,
394
     naustrian=Diplom-Ingenieurin] {MdegDiplFemale}%
395
396 \CreatePolylingual[
397
     english=Magister der Naturwissenschaften,
     naustrian=Magister der Naturwissenschaften]{MdegRerNatMale}%
398
399 \CreatePolylingual[
     english=Magistra der Naturwissenschaften,
     \verb|naustrian=Mag| is tra| der Naturwissenschaften| \{ \texttt{MdegRerNatFemale} \} \%
402 \CreatePolylingual[
     english=Magister der Sozial- und Wirtschaftswissenschaften,
403
     naustrian=Magister der Sozial- und Wirtschaftswissenschaften]{%
404
    MdegRerSocOecMale}%
405
406 \CreatePolylingual[
     english=Magistra der Sozial- und Wirtschaftswissenschaften,
407
     naustrian=Magistra der Sozial- und Wirtschaftswissenschaften]{%
408
    MdegRerSocOecFemale}%
410 \CreatePolylingual[
     english=Doktor der Naturwissenschaften,
     naustrian=Doktor der Naturwissenschaften]{DdegRerNatMale}%
413 \CreatePolylingual[
414 english=Doktorin der Naturwissenschaften,
    naustrian=Doktorin der Naturwissenschaften]{DdegRerNatFemale}%
416 \CreatePolylingual[
     english=Doktor der Technischen Wissenschaften,
417
     naustrian=Doktor der Technischen Wissenschaften]{DdegTechnMale}%
418
419 \CreatePolylingual[
    english=Doktorin der Technischen Wissenschaften,
     naustrian=Doktorin der Technischen Wissenschaften]{DdegTechnFemale}%
422 \CreatePolylingual[
     english=Doktor der Sozial- und Wirtschaftswissenschaften,
424
    naustrian=Doktor der Sozial- und Wirtschaftswissenschaften] {%
425
    DdegRerSocOecMale}%
426 \CreatePolylingual[
     english=Doktorin der Sozial- und Wirtschaftswissenschaften,
427
     naustrian=Doktorin der Sozial- und Wirtschaftswissenschaften]{%
428
    DdegRerSocOecFemale}%
Thesis types.
430 \CreatePolylingual[
     english=BACHELOR'S THESIS,
```

naustrian=BACHELORARBEIT] {BACHELORTHESIS}%

433 \CreatePolylingual[

```
434 english=MASTER'S THESIS,
                                                                                                  435 naustrian=MASTERARBEIT] {MASTERTHESIS}%
                                                                                                  436 \CreatePolylingual[
                                                                                                  437 english=DIPLOMA THESIS,
                                                                                                  438 naustrian=DIPLOMARBEIT]{DIPLOMATHESIS}%
                                                                                                  439 \CreatePolylingual[
                                                                                                                   english=DISSERTATION,
                                                                                                                     naustrian=DISSERTATION]{DOCTORTHESIS}%
                                                              \settitle Sets the title of the thesis.
                                                                                                  442 \newcommand{\settitle}[2]{%
                                                                                                  443 \CreatePolylingual[english=#1,naustrian=#2]{Title}%
                                                                                                  444 }%
                                                   \setsubtitle Sets the subtitle of the thesis.
                                                                                                  445 \newcommand{\setsubtitle}[2]{%}
                                                                                                  446 \CreatePolylingual[english=#1,naustrian=#2]{Subtitle}%
                                                                                                  447 }%
                                           \setcurriculum Sets the curriculum name.
                                                                                                  448 \newcommand{\setcurriculum}[2]{%
                                                                                                                  \CreatePolylingual[english=#1,naustrian=#2]{Curriculum}%
                                                                                                  450 }%
                                                                                                  5.3 Layout
                                                                                                  5.3.1 Setup
              \vutinfth@squarebullet Set internal convenience macros.
                                                                                                  451 \newcommand{\newsetlength} [2] {%}
                                                                                                  452 \newlength{#1}%
                                                                                                  453
                                                                                                                     \setlength{#1}{#2}%
                                                                                                  454 }%
                                                                                                  455 \newcommand{\vutinfth@squarebullet}{\rule[0.47ex]\{0.4ex\}}%
           \vutinfth@tmp@parindent Temporary storage for page layout lengths.
\vutinfth@tmp@baselineskip
                 \vutinfth@tmp@parskip ^{456} \newlength{\vutinfth@tmp@parindent}%
                                                                                                  457 \newlength{\vutinfth@tmp@baselineskip}%
                                                                                                  458 \mbox{ }\mbox{\ensuremath{\mbox{\sc hewlength{\mbox{\sc hewlength{\sc hewlen
                      \vutinfth@savelayout Saves and restores relevant page layout lengths.
           \vutinfth@restorelayout
                                                                                                  459 \newcommand{\vutinfth@savelayout}{%
                                                                                                                   \setlength{\vutinfth@tmp@parindent}{\parindent}%
                                                                                                  460
                                                                                                                     \verb|\colored| with the tmp@baselineskip|{\colored}| % a selineskip|{\colored}| % a selineskip|{\colore
                                                                                                  461
                                                                                                                  \setlength{\vutinfth@tmp@parskip}{\parskip}%
                                                                                                  462
                                                                                                  463 }%
                                                                                                  464 \newcommand{\vutinfth@restorelayout}{%
                                                                                                                     \setlength{\parindent}{\vutinfth@tmp@parindent}%
```

```
466 \setlength{\baselineskip}{\vutinfth@tmp@baselineskip}%
467 \setlength{\parskip}{\vutinfth@tmp@parskip}%
468 }%
```

5.3.2 Title Page

Initialize the header graphics. The vertical placement of the header graphics on the title pages are given by \vutinfth@header@placement, while the composition of the graphical elements are determined by the subsequent lengths, which constitute direct measurements of the graphics. If the header graphics are changed, these values have to be adapted.

```
469 \newsetlength{\vutinfth@logo@offset@x}{10.6mm}%
470 \newsetlength{\vutinfth@logo@offset@y}{22mm}%
471 \newsetlength{\vutinfth@logo@width@safe}{74mm}%
472 \newsetlength{\vutinfth@logo@height}{11mm}%
473 \newsetlength{\vutinfth@header@width}{\paperwidth - \vutinfth@logo@offset@x - \vutinfth@logo@474 \newsetlength{\vutinfth@header@height}{\vutinfth@logo@height}%
475 \newsetlength{\vutinfth@header@separator}{-12mm}%
```

\vutinfth@header@titlepage Initialize header.

```
476 \newcommand{\vutinfth@header@titlepage}{%
477 \setlength{\unitlength}{1mm}%
478 \begin{picture}(74, 11)%
479 {\includegraphics[height=\vutinfth@logo@height]{Logo-schwarz.pdf}}
480 \end{picture}\hfill
481 }%
```

\vutinfth@footer@titlepage Initialize footer.

```
482 \newcommand{\vutinfth@footer@titlepage}{%
     \centering
484
     \begin{minipage}{\textwidth}%
       \centering\vutinfth@normalsize\sffamily
485
       Technische Universit\"{a}t Wien\\
486
       A-1040 Wien \vutinfth@squarebullet\space
487
       Karlsplatz 13 \vutinfth@squarebullet\space
488
       Tel. +43-1-58801-0 \vutinfth@squarebullet\space
489
       www.tuwien.at%
490
     \end{minipage}%
491
492 }%
```

vutinfth@pagestyle@titlepage Generate the title page style.

```
\label{eq:control_solution} 502 \mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{}\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{}\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mb
```

Set style element specifications.

508 \newsetlength{\vutinfth@bigskipamount}{6mm}%

Helper functions.

 $509 \mbox{$\warp{\wxspace}\wxspace{\wxspace{\wxspace{\wxspace}\wxspace{\wxspace}\w$

\AdvisorBlock Generates a block with the advisor's name (and potential assistances' names). An error is thrown, if the advisors are not defined consecutively, starting with the first.

```
510 \newcommand{\AdvisorBlock}{%
511
     \ifundergraduate{%
512
       \begin{minipage}[t][2.5cm][t]{\textwidth}%
513
         \vutinfth@normalsize
         \begin{tabular}{@{}l@{ }l}%
514
515
           \vutinfth@polylingual@Advisor: &
           \vutinfth@person@advisor@fullname\\
516
           \ifdef{\vutinfth@person@firstassistant@def}{%
517
518
              \vutinfth@polylingual@Assistance: &
              \vutinfth@person@firstassistant@fullname\\
519
520
           }{}%
521
           \ifdef{\vutinfth@person@secondassistant@def}{%
522
              \ifundef{\vutinfth@person@firstassistant@def}{%
523
                \vutinfth@person@firstassistant@error
524
             }{%
               & \vutinfth@person@secondassistant@fullname\\
525
             }%
526
           }{}%
527
           \ifdef{\vutinfth@person@thirdassistant@def}{%
528
              \ifundef{\vutinfth@person@firstassistant@def}{%
529
530
                \vutinfth@person@firstassistant@error
531
             }{%
                \ifundef{\vutinfth@person@secondassistant@def}{%
532
                  \vutinfth@person@secondassistant@error
533
534
               }{%
                  & \vutinfth@person@thirdassistant@fullname\\
535
              }%
536
            }%
537
          ጉ ና ጉ %
538
539
         \end{tabular}%
540
       \end{minipage}%
541
     }%
542
     \ifgraduate{%
543
       \begin{minipage}[t][1.6cm][t]{\textwidth}%
544
         \vutinfth@normalsize
```

```
\vutinfth@polylingual@Advisor:
545
         \vutinfth@person@advisor@fullname
546
         \ifdef{\vutinfth@person@secondadvisor@def}{%
547
548
            \vutinfth@polylingual@Secondadvisor:
549
            \vutinfth@person@secondadvisor@fullname
550
551
552
        \end{minipage}\par%
     }%
553
554 }%
```

\vutinfth@signature@width \vutinfth@placedate@width

\vutinfth@signature@height Set lengths of the signature blocks.

555 \newsetlength{\vutinfth@signature@height}{25mm}% 556 \newsetlength{\vutinfth@signature@width}{51mm}% 557 \newsetlength{\vutinfth@placedate@width}{50mm}%

\SignatureFields Generates a block with signatures and an optional place-date entry. The first argument is optional and adds an entry with date and place [y], or adds corresponding whitespace [n] or adds nothing [n], which is also the default value. The second arguments adds a rule and the given text below it, if a text is given, or the corresponding whitespace, if not. The third argument adds a rule and the given text below it, if a text is given.

```
558 \newcommand{\SignatureFields}[3][n]{%
     {\vutinfth@normalsize
559
560
        \ifstrequal{#1}{y}{%
561
          \begin{minipage}[b][\vutinfth@signature@height]{%
562
              \vutinfth@placedate@width
            }%
563
            \vutinfth@polylingual@Place,
564
            \DTMusedate{vutinfth@date@signing}\vspace*{\baselineskip}%
565
          \end{minipage}%
566
          \hfill
567
568
        \left\{ \frac{\#1}{n}{}\right\} 
569
570
        \ifstrequal{#1}{h}{%
          \hspace*{\vutinfth@placedate@width}%
571
          \hfill
572
       }{}%
573
        \ifstrempty{#2}{%
574
          \hspace*{\vutinfth@signature@width}%
575
576
          \hfill
577
       }{%
          \begin{minipage}[b][\vutinfth@signature@height]{%
578
              \vutinfth@signature@width
579
            }%
580
581
            \centering
            \rule{\vutinfth@signature@width}{0.5pt}\\
582
583
          \end{minipage}%
584
          \hfill
585
       }%
586
587
       \left\{ \frac{43}{3} \right\}
```

```
\begin{minipage}[b][\vutinfth@signature@height]{%
588
              \vutinfth@signature@width
589
            }%
590
591
            \centering
            \rule{\vutinfth@signature@width}{0.5pt}\\
592
593
594
          \end{minipage}%
595
       }%
     }%
596
597 }%
```

\ReviewerBlock Generates a block with the relevant signatures.

```
598 \mbox{ \newcommand{\ReviewerBlock}{\%}}
599
     \ifgraduate{%
        {\vutinfth@normalsize
600
          \vutinfth@polylingual@Reviewed\\
601
602
          \SignatureFields[h]{%
            \vutinfth@person@firstreviewer@name
603
604
            \vutinfth@person@secondreviewer@name
          }%
606
607
       }%
     }%
608
609 }%
```

\SignatureBlock Generates a block with the relevant signatures.

```
610 \mbox{ \newcommand{\SignatureBlock}{\mbox{\normal}}}
      \ifundergraduate{%
611
        {\vutinfth@normalsize
612
613
           \SignatureFields[y]{%
             \vutinfth@person@author@name
614
615
616
             \vutinfth@person@advisor@name
617
          }%
        }%
618
     }%
619
      \ifgraduate{%
620
        {\vutinfth@normalsize
621
          \SignatureFields[y]{}{%
622
623
             \vutinfth@person@author@name
624
          }%
        }%
625
626
     }%
627 }%
```

\AddTitlePage Generates the language-dependant title page. Multiline title and subtitle are supported.

```
628 \newcommand{\AddTitlePage}{
629 \thispagestyle{vutinfth@pagestyle@titlepage}}%
```

Set a new page geometry where the header separation length (headsep) places the header. The actual header height (head) has to be large enough to contain the header content otherwise the underlying memoir class issues a warning.

```
630
     \newgeometry{%
       left=2.4cm,right=2.4cm,bottom=2.5cm,top=2cm,
631
       headsep=\vutinfth@header@separator,
632
633
       head=\vutinfth@header@height
634
     }%
Save the current page layout lengths for later restoration.
635
     \vutinfth@savelayout
     \setlength{\parindent}{0pt}%
636
     \setlength{\baselineskip}{13.6pt}%
637
     \setlength{\parskip}{Opt plus 1pt}%
Set title page text to helvetica.
     \begin{SFFont}{phv}%
639
       \sffamily
640
       {\centering
641
642
          \vspace*{1.2cm}\par
Title and subtitle are bottom aligned and grow upwards.
          \begin{minipage}[t][5cm][b]{\textwidth}%
643
644
            \centering
            \vutinfth@HUGE{\bfseries\vutinfth@polylingual@Title}\\
645
646
           \bigskip
647
           \vutinfth@huge{\bfseries
              \ifdef{\vutinfth@polylingual@Subtitle}{%
648
                \vutinfth@polylingual@Subtitle}{%
649
650
              }%
           }%
651
652
         \end{minipage}\par
          \vutinfth@bigskip\vutinfth@bigskip
653
654
         {\vutinfth@LARGE\vutinfth@polylingual@thesisname}\par
655
         \vutinfth@bigskip
         {\vutinfth@large\vutinfth@polylingual@submission}\par
656
          \vutinfth@bigskip
657
         \ifundergraduate{%
658
           {\vutinfth@LARGE{\bfseries\vutinfth@polylingual@degreename}}\par
659
660
            \vutinfth@bigskip
661
           {\vutinfth@large\vutinfth@polylingual@in}\par
            \vutinfth@bigskip
662
            {\vutinfth@Large{\bfseries\vutinfth@polylingual@Curriculum}}\par
663
         }%
664
665
         \ifgraduate{%
           {\vutinfth@LARGE{\bfseries\vutinfth@polylingual@degreename}}\par
666
         }%
667
         \vutinfth@bigskip
668
         {\vutinfth@large\vutinfth@polylingual@by}\par
669
         \vutinfth@bigskip
670
```

 ${\tt \{\vutinfth@Large\{\bfseries\vutinfth@person@author@fullname\}\}\par}$

671

```
672
         \smallskip
         {\vutinfth@large\vutinfth@polylingual@Registrationnumber\
673
         \vutinfth@data@regnumber}\par
674
       }%
675
       \vutinfth@bigskip\vutinfth@bigskip
676
       \begin{minipage}[b][1.6cm][c]{\textwidth}%
677
         \vutinfth@normalsize%
678
         \vutinfth@polylingual@faculty\par
679
         \vutinfth@polylingual@university
680
       \end{minipage}\par
681
       \AdvisorBlock\par
682
```

Add stretchable glue between the advisor block and the signatures. This ensures that the signature part is always at the bottom of the page.

```
683
       \vfill
       \ReviewerBlock\par
684
       \SignatureBlock\par
685
       \vspace*{1cm}%
686
     \end{SFFont}%
687
     \pagestyle{empty}%
689
     \cleardoublepage
     \vutinfth@restorelayout
690
     \restoregeometry
691
692 }%
```

5.3.3 Front Matter Material

\AddStatementPage Generates the statement page.

```
693 \newcommand{\AddStatementPage}{
```

Set the same page geometry as for the titlepages.

```
694 %^A \newgeometry{\( \)
695 \%^A \left=2.4cm,right=2.4cm,bottom=2.5cm,top=2cm,
696 \%^A \left=2.4cm,right=2.4cm,bottom=2.5cm,top=2cm,
697 \%^A \left=2.4cm,right=2.4cm,bottom=2.5cm,top=2cm,
698 \left=2.4cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,right=2.4cm,bottom=2.5cm,bottom=2.5cm,bottom=2.5cm
```

Save the current page layout lengths for later restoration.

```
\vutinfth@savelayout
699
     \setlength{\parindent}{0pt}%
700
     \setlength{\baselineskip}{13.6pt}%
701
702
     \setlength{\parskip}{Opt plus 1pt}%
703
     \begin{SFFont}{phv}%
704
       \sffamily
         \chapter*{\vutinfth@polylingual@StatementChapter}%
705
         \vutinfth@person@author@fullname\par
706
707 % ^^A
              \vutinfth@data@address\par
         \vspace{1.2cm}%
708
709
         {\normalfont\vutinfth@polylingual@Statement}\par
710
         {\normalfont\vutinfth@polylingual@AIStatement}\par
711
         \vspace{1.2cm}%
```

```
\end{SFFont}%
                         713
                              \cleardoublepage
                         714
                         715 \vutinfth@restorelayout
                         716 %^^A \restoregeometry
                         717 }%
          \addtitlepage Generates the titlepage in given language.
                         718 \newcommand{\addtitlepage}[1]{%
                              \selectlanguage{#1}%
                         720
                              \AddTitlePage
                         721 }%
      \addstatementpage Generates the statement page.
                         722 \newcommand{\addstatementpage}{%
                              \selectlanguage{naustrian}%
                              \AddStatementPage
                         724
                         725 }%
 {\tt acknowledgements}\ ({\it env.})\ \ {\tt Generates}\ \ {\tt the}\ \ {\tt English}\ \ {\tt acknowledgement}\ \ {\tt section}.
                         726 \newenvironment{acknowledgements}{%
                              \selectlanguage{english}%
                         728 \chapter{Acknowledgements}%
                         729 }{%
                         730 \cleardoublepage
                         731 }%
acknowledgements* (env.) Generates the English acknowledgement section without an entry in the table of
                         732 \newenvironment{acknowledgements*}{%
                         733 \selectlanguage{english}%
                              \chapter*{Acknowledgements}%
                         734
                         735 }{%
                         736 \cleardoublepage
                         737 }%
       danksagung (env.) Generates the German acknowledgement section.
                         738 \newenvironment{danksagung}{%
                         739 \selectlanguage{naustrian}%
                              \chapter{Danksagung}%
                         740
                         741 }{%
                         742 \cleardoublepage
                         743 }%
      danksagung* (env.) Generates the German acknowledgement section without an entry in the table of
                         contents.
                         744 \newenvironment{danksagung*}{%
                         745 \selectlanguage{naustrian}%
```

 $\label{lem:condition} $$ \sigma_{y} {\displaystyle \int \Phi^{0}(u) du + \Phi^{0}(u)} = \frac{1}{2} . $$$

712

```
746 \chapter*{Danksagung}%
                   747 }{%
                   748 \cleardoublepage
                   749 }%
    abstract (env.) Generates the English abstract.
                   750 \renewenvironment{abstract}{%
                        \selectlanguage{english}%
                       \chapter{Abstract}%
                   753 }{%
                   754 \cleardoublepage
                   755 }%
   abstract* (env.) Generates the English abstract without an entry in the table of contents.
                   756 \newenvironment{abstract*}{%
                   757 \selectlanguage{english}%
                       \chapter*{Abstract}%
                   758
                   759 }{%
                   760 \cleardoublepage
                   761 }%
 kurzfassung (env.) Generates the German abstract.
                   762 \newenvironment{kurzfassung}{%
                   763 \selectlanguage{naustrian}%
                   764 \chapter{Kurzfassung}\%
                   765 }{%
                   766 \cleardoublepage
                   767 }%
kurzfassung* (env.) Generates the German abstract without an entry in the table of contents.
                   768 \newenvironment{kurzfassung*}{%
                   769 \selectlanguage{naustrian}%
                   770 \chapter*{Kurzfassung}%
                   771 }{%
                   772 \cleardoublepage
                   773 }%
     aitools (env.) Generates the English AI statement.
                   774 \newenvironment{aitools}{%
                   775 \selectlanguage{english}%
                   776 \chapter[\vutinfth@AIToolsChapter@english] {\vutinfth@polylingual@AIToolsChapter}%
                   777 }{%
                   778 \cleardoublepage
                   779 }%
    aitools* (env.) Generates the English AI statement without an entry in the table of contents.
                   780 \newenvironment{aitools*}{%
                   781 \selectlanguage{english}%
```

```
\chapter*{\vutinfth@polylingual@AIToolsChapter}%
                                                             783 }{%
                                                             784
                                                                        \cleardoublepage
                                                             785 }%
                              kitools (env.) Generates the German AI statement.
                                                             786 \newenvironment{kitools}{%
                                                                         \selectlanguage{naustrian}%
                                                                        \chapter[\vutinfth@AIToolsChapter@naustrian] {\vutinfth@polylingual@AIToolsChapter}%
                                                             789 }{%
                                                             790
                                                                        \cleardoublepage
                                                             791 }%
                           kitools* (env.) Generates the German AI statement without an entry in the table of contents.
                                                             792 \newenvironment{kitools*}{%
                                                                        \selectlanguage{naustrian}%
                                                                        \chapter*{\vutinfth@polylingual@AIToolsChapter}%
                                                             794
                                                             795 }{%
                                                             796
                                                                       \cleardoublepage
                                                             797 }%
                                                             5.3.4 Page Style
vutinfth@pagestyle@default Define the default page style of the thesis.
                                                             798 \makepagestyle{vutinfth@pagestyle@default}%
                                                             799 \makeevenfoot{vutinfth@pagestyle@default}{\thepage}{}{}%
                                                             800 \makeoddfoot{vutinfth@pagestyle@default}{}{}{\thepage}%
                                \frontmatter Apply the default page style to the thesis.
                                  \verb|\backmatter|| 801 \aliaspagestyle{chapter}{vutinfth@pagestyle@default}| % \aliaspagestyle{chapter}| % \aliaspa
                                                             802 \aliaspagestyle{part}{vutinfth@pagestyle@default}%
                                                             803 \add to \front matter {\pagestyle {\it vutinfth@pagestyle@default}} \%
                                                             804 \addto\mainmatter{\pagestyle{Ruled}}%
                                                             805 \add to \backmatter{\pagestyle{vutinfth@pagestyle@default}}\%
                                                                         Change History
                                                             6
                                                             v0.9
                                                                                                                                                           \AddStatementPage: Updated to
                                                                                                                                                                   support multiple languages.
                                                                    General: Pre-release version . . . . . 1
                                                                                                                                                                   Issue #4 . . . . . . . . . . . . . . . . 27
                                                             v1.0
                                                                                                                                                           \addstatementpage: Updated to
                                                                    General: Initial release version . . . 1
                                                                                                                                                                  support English version. Issue
                                                             v1.1
                                                                                                                                                                   General: Added references to the
                                                                                                                                                           \verb|\AddTitlePage: Added check for | \\
                                                                           GitLab environment \dots 1
                                                                                                                                                                  subtitle existence before usage.
                                                             v1.3
                                                                                                                                                                   General: Added support for a
                                                                                                                                                                Updated to support PhD School
                                                                           dissertation at the Vienna Phd
```

School of Informatics. Issue #4

mentioning and fixed the

associated vertical overflow.	v1.9
Issue #4 25	General: Changed header graphics
\AdvisorBlock: Updated to	and unversity URL 1
support second advisor. Issue	\AddStatementPage: Changed
#4 23	header graphics 27
Persons: Updated to support	\AddTitlePage: Changed header
second advisor. Issue Issue #4 18	graphics
Textual Data: Updated to support	$\verb vutinfth@pagestyle@titlepage :$
external reviewer data. Issue	Changed header graphics 22
#4 18	\vutinfth@footer@titlepage:
PolyLinguals: Added to support	Changed university URL 22
multiple dissertation types.	\vutinfth@header@titlepage:
Issue #4	Changed header graphics 22
\ReviewerBlock: Updated to	v1.11
support external reviewers.	General: Updated name of faculty
Issue #4 25	to 'TU Wien Informatics' 1
\setthesis: Altered to support	\setdate: Updated to datetime2
multiple dissertation types.	package
Issue #4	\SignatureFields: Updated to
\SignatureBlock: Updated to	datetime2 package 24
support multiple dissertation	v1.12
types. Issue #4 25	General: Removed obsolete
\vutinfth@thesis@doctor: Added	support for a dissertation at
to support multiple	the Vienna PhD School of
dissertation types. Issue #4 15	Informations. Issue #8 1
v1.4	\addstatementpage: Removed
General: Added comma to	support for English version.
separate posttitle and changed	Issue #8 28
mainmatter pagestyle to	\AddTitlePage: Removed obsolete
'Ruled'	support for a dissertation at
\mainmatter: Added 'Ruled'	the Vienna PhD School of
pagestyle	Informations. Issue #8 25
\vutinfth@def@person: Added	PolyLinguals: Removed support
comma to separate posttitle 11	of multiple dissertation types.
v1.5	Issue #8
General: Updated name of	\ReviewerBlock: Removed
university to 'TU Wien' 1	support for external reviewers.
PolyLinguals: Updated name of	Issue #8
university to 'TU Wien' 18	\setthesis: Removed support for
v1.6	multiple dissertation types.
General: Enabled second advisor	Issue #8
for dissertations 1	\SignatureBlock: Removed
\AdvisorBlock: Enabled second	support for multiple
advisor for dissertations 23	dissertation types. Issue #8 25
PolyLinguals: Provided German	\vutinfth@thesis@doctor:
term for second advisor 18	Removed support for multiple
v1.8	dissertation types. Issue $\#8$ 15 v1.13
General: Removed address	
information	General: Added AI statement 1
\AddStatementPage: Removed	\AddStatementPage: Added AI
address information	statement
	aitools: Added AI statement 29 aitools*: Added AI statement 29
Textual Data: Removed address	
information	kitools: Added AI statement 30

kitools*: Added AI staten PolyLinguals: Added AI	nent.	. 3	0		state	ement	;				. 18
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Sym	bols										
\"		334.	348.	356.	357.	358.	372.	374.	376.	377.	486
\@empty											
\@namedef $47, 48, 51, 54, 5$											
108, 111, 113, 115,							, -	-, -	, ,	,	- ,
\@namelet										136.	155
\@nameuse											
\@namexdef		,		,	,	,	,	,	,	,	
\@setdegreename											
\@setgendereddegreename								,	,		
\@setthesisname											
\\											
\		,	,	,	,	,	,	,	,	,	
										,	
${f A}$											
abstract (env.)										. <i>6</i> ,	<u>750</u>
abstract* (env.)										. <i>6</i> ,	756
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acknowledgements* (env.)										. <i>6</i> ,	732
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\addstatementpage											
\AddTitlePage											
\addtitlepage											
\addto											
\AdvisorBlock											
aitools (env.)											
$\mathtt{aitools*}(\mathtt{env.})$											
\aliaspagestyle											
										,	
В											
\backmatter											<u>801</u>
\baselineskip							461,	466,	565,	637,	701
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\begingroup									. 20	, 34,	163
\bfseries											
\bigskip											646
\mathbf{C}											
\centering											
\chapter \dots 705, 728,											
\chapterstyle											
\ClassError											
\cleardoublepage . 689, 790, 796	714, 7	730,	736,	742,	748,	754,	760,	766,	772,	778,	784,

$\c \c \$	
$\$ CreatePerson	307
$\$ CreatePolylingual . 7, $\underline{162}$, 310 , 313 , 316 , 320 , 323 , 326 , 329 , 332 , 335 , 355 ,	38,
341, 343, 346, 349, 363, 381, 384, 387, 390, 393, 396, 399, 402, 406, 41	10,
413, 416, 419, 422, 426, 430, 433, 436, 439, 443, 446, 449	
\csname	18
\CurrentOption	2
_	
D	
danksagung (env.) 6, 7	
danksagung* (env.)	
\DeclareOption	
\DTMsavedate	
\DTMusedate5	65
${f E}$	
E	22
,	
\else 1	
\end 480, 491, 539, 540, 552, 566, 584, 594, 652, 681, 687, 7	
\endcsname	
$ackslash ext{endgroup} egin{array}{cccccccccccccccccccccccccccccccccccc$.00
environments:	 -
abstract	
abstract*	
acknowledgements	
acknowledgements* 6, 7	
aitools	
aitools* 7	
danksagung 6, 7	
danksagung* 6, 7	
kitools	
kitools* 7	
kurzfassung	
kurzfassung* 6, 7	
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\expandafter 18, 23,	24
F	
\f@family	39
\fi	
\fontsize	
\footruleskip	
\frontmatter 8	
/ironematter	<u>,01</u>
${f G}$	
\global	36
\sqrt{g}lqq	374
	17
\grqq	375

Η

\hfill 480, 567, 572, 576, 58	35
\hspace	
\(\text{nspace}\)	(9)
I	
\ifcsempty	11
\ifcsstring 65, 6	j8
\ifdef 517, 521, 528, 547, 64	18
\ifdefstrequal 3	
\ifdefstring 75, 78, 159, 208, 214, 226, 241, 249, 253, 261, 274, 281, 28	38
\ifdraftdoc	12
\ifestrequal 19, 175, 18	
- , ,	
\iffemale $\underline{64}$, 20	
\ifgraduate	35
\ifmale 64, 20	14
— /	
\ifstrempty 81, 82, 85, 92, 93, 99, 574, 58	
\ifstrequal 23, 560, 569, 57	70
\ifundef 133, 152, 522, 529, 53	32
\ifundergraduate	
\includegraphics	79
K	
kitools (env.)	06
kitools* (env.)	<u> 92</u>
kurzfassung (env.)	32
kurzfassung* (env.)	
kurzrassung* (env.)	<u> </u>
_	
${f L}$	
	59
\languagename	
\languagename	<u>)8</u>
\languagename	<u>)8</u>
\languagename) <u>8</u> 36
\languagename) <u>8</u> 36
\languagename) <u>8</u> 36
\languagename	08 36 5
\languagename	08 36 5
\languagename	08 36 5 01
\languagename	08 36 5 01 99
\languagename	08 36 5 01 09 98
\languagename	08 36 5 01 09 98
\languagename	08 5 5 01 99 98 02
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