

The `kaucollection` class*

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1 Introduction

The `kaucollection` class is part of the `kauthesis` package. The class provides macros for writing a collection thesis. The latest version can be obtained from

`http://github.com/ZjMNZHgG5jMXw/kauthesis` .

The user's manual is found in `kauguide.pdf`.

2 Implementation

2.1 Class options and dependencies

Class options are neither parsed nor passed to the underlying `article` class.

```
1 \ProcessOptions\relax
```

`kaucollection` derives all macros from the standard `article` class.

```
2 \LoadClass{article}
```

and from the packages: `kauclear` provides page style switches in `\cleardoublepage`, `kaustudies` sets the page dimension to the format required by Karlstad University Studies, `kaumeta` defines the macros relevant for creating title information, e.g., `\institute`, `kaupaper` defines the macros for appending papers to the collection thesis, `kauenvironments` defines environments such as `researchquestions` and `contributions`, `tikz` allows to place content material with absolute coordinates (required by `\vanityquote`), and `babel` allows the author, for instance, to choose the language used in section headlines.

```
3 \RequirePackage{kauclear}
4 \RequirePackage{kaustudies}
5 \RequirePackage{kaumeta}
6 \RequirePackage{kaupaper}
7 \RequirePackage{kauenvironments}
8 \RequirePackage{tikz}
9 \RequirePackage{babel}
```

*This document corresponds to `kaucollection` v1.2, dated 2012/12/14.

2.2 Title page

Karlstad University Studies will create the title page for the thesis, thus, creating an own title page is not necessary. The macro `\maketitle` creates a title page which by no means makes an attempt to simulate the official design. It can be used to create a working title during the process of writing up the thesis.

`\kaucol@maketitle` The definition of `\maketitle` in the `article` class creates a title without creating a separate page. `jobname` redefines the macro and preserves the original definition in `\kaucol@maketitle`.

```
10 \AtBeginDocument{\let\kaucol@maketitle\maketitle}
```

`\maketitle` The redefined `\maketitle` creates a trailing blank page.

```
11 \renewcommand\maketitle{%
12   \kaucol@maketitle%
13   \cleardoublepage%
14 }
```

2.3 Front matter

The front matter starts after the title on page iii. It contains the abstract of the collection thesis, defines the keywords, followed by an optional acknowledgements section and the table of contents.

`\keywordname` The abstract is followed by the list of keywords. By default, the list is introduced by the word “Keywords” (and “Nyckelord” if the default language is set to Swedish). The list introduction can be changed to any other language by redefining the macro `\keywordname`.

```
15 \newcommand*\keywordname{\iflanguage{swedish}{Nyckelord}{Keywords}}
```

`\kaucol@abstract` The `abstract` environment of the `article` class provides a perfect layout for article abstracts. It will be used for the abstracts of appended papers and preserved in the macro `\kaucol@abstract`.

```
16 \let\kaucol@abstract\abstract%
17 \let\kaucol@endabstract\endabstract%
```

`\frontmatter` The front matter is started with `\frontmatter`. It is assumed that this macro directly runs after the optional `\maketitle`.

```
18 \newcommand*\frontmatter{%
19   \clearpage%
20   \setcounter{page}{3}%
21   \renewcommand\thepage{\roman{page}}%
```

The front matter starts on page iii, i. e., two pages are reserved for the title.

`abstract` The `abstract` environment in the front matter creates a title and an unnumbered abstract section.

```
22 \renewenvironment{abstract}{%
```

`\keywords` The last line of the abstract is supposed to be a list of keywords preceded by `\keywords`.

```
23   \newcommand\keywords{\paragraph{\keywordname:}}%
```

The abstract starts by repeating the title, author, and the institute.

```

24   \cleardoublepage%
25   \section*{\@title}%
26   \textsc{\@author}\par%
27   \noindent\textit{\@institute}%
28   \section*{\abstractname}%
29   }{%

```

The thesis continues after the abstract on an odd page.

```

30   \cleardoublepage%
31   }%
32 }

```

\acknowledgementname By default, the `acknowledgements` environment will create an unnumbered section with the title “Acknowledgements” (or “Tacksägelse”, if Swedish is chosen as default language). The section headline can be changed to any other language by redefining the macro `\acknowledgementname`.

```

33 \newcommand*\acknowledgementname{%
34   \iflanguage{swedish}{Tacks\ "agelser}{Acknowledgements}%
35 }

```

acknowledgements The environment `acknowledgements` creates an unnumbered section.

```

36 \newenvironment{acknowledgements}{%
37   \cleardoublepage%
38   \section*{\acknowledgementname}%
39 }{%

```

The author’s name is reused to create an attribution line at the end of the acknowledgements section.

```

40   \par\bigskip\bigskip\bigskip\noindent\@place, \@date\hfill \@author%
41   \cleardoublepage%
42 }

```

\kaucol@tableofcontents The `\tableofcontents` definition from the article class is preserved. It is not reused in this class.

```

43 \let\kaucol@tableofcontents\tableofcontents

```

\tableofcontents The redefined macro makes the table of contents start on an odd page.

```

44 \renewcommand\tableofcontents{%
45   \cleardoublepage%
46   \kaucol@tableofcontents%
47 }

```

2.4 Main matter

The main matter is started with `\mainmatter`. The macro resets the page counter to page 1 and immediately creates the part Introductory Summary.

\introname The name of the Introductory Summary (“Inledande sammanfattning” in Swedish) can be changed to any other language by redefining the macro `\introname`.

```

48 \newcommand*\introname{%
49   \iflanguage{swedish}{Inledande sammanfattning}{Introductory Summary}%
50 }

```

`\mainmatter` The optional argument of `\mainmatter[body material]` can be used to get access to the part's title page, e.g., for adding a quote with `\vanityquote`.

```

51 \newcommand\mainmatter[1] [] {%
52   \cleardoublepage%

```

The original definition of the `abstract` environment is restored.

```

53   \renewenvironment{abstract}{\kaucol@abstract}{\kaucol@endabstract}

```

The page counter is set to page 1.

```

54   \setcounter{page}{1}%
55   \renewcommand\thepage{\arabic{page}}%

```

The Introductory Summary title page is created with `\introname` and *body material*.

```

56   \kaupart*[body={#1}]{\introname}%
57 }

```

`\vanityquote` The macro `\vanityquote{quote}{reference}` can be used to add quotes to the cover pages of parts, e.g., in *body material* of `\mainmatter`. The first argument, *quote*, is the quote and the second, *reference*, is the reference to the person which is quoted.

```

58 \newcommand\vanityquote[2] {%

```

The quote is placed relative to the borders of the page. TikZ is doing the actual placing.

```

59   \begin{tikzpicture}[remember picture,overlay]%

```

The placing reference is the lower right corner of the page.

```

60     \path (current page.south east) +(-3,3.5)%
61       node%
62         [ anchor=south east%
63           , font=\large%
64           , text width=25em%

```

The closing quotation marks are placed outside the quote's right margin.

```

65       ] {\raggedleft‘‘#1\rlap{’}’}%
66         \normalfont\par\medskip\itshape #2\par};%
67   \end{tikzpicture}%
68 }

```

Change History

v1.0		v1.2
General: SBe's licentiate version . .	1	
v1.1		General: Support for babel.sty,
General: Initial public release	1	Documentation added 1

Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

Symbols

`\"` 34 4

\@author	26, 40	acknowledgements	<u>36</u>	N	
\@date	40			\noindent	27, 40
\@institute	27	F		\normalfont	66
\@place	40	\frontmatter	<u>18</u>	P	
\@title	25	H		\par	26, 40, 66
A		\hfill	40	\paragraph	23
\abstract	16	I		\path	60
abstract (environ-		\iflanguage ..	15, 34, 49	\ProcessOptions	1
ment)	<u>22</u>	\introname	<u>48</u> , 56	R	
\abstractname	28	\itshape	66	\raggedleft	65
\acknowledgementname		K		\relax	1
.....	<u>33</u> , 38	\kaucol@abstract	<u>16</u> , 53	\renewcommand	11, 21, 44, 55
acknowledgements (en-		\kaucol@endabstract		\renewenvironment	22, 53
vironment) ...	<u>36</u>	17, 53	\RequirePackage ...	3–9
\arabic	55	\kaucol@maketitle	<u>10</u> , 12	\rlap	65
\AtBeginDocument ..	10	\kaucol@tableofcontents		\roman	21
B		<u>43</u> , 46	S	
\begin	59	\kaupart	56	\section	25, 28, 38
\bigskip	40	\keywordname	<u>15</u> , 23	\setcounter	20, 54
C		\keywords	<u>23</u>	T	
\cleardoublepage ..		L		\tableofcontents	43, <u>44</u>
.....	13, 24,	\large	63	\textit	27
30, 37, 41, 45,	52	\let	10, 16, 17, 43	\textsc	26
\clearpage	19	\LoadClass	2	\thepage	21, 55
E		M		V	
\end	67	\mainmatter	<u>51</u>	\vanityquote	<u>58</u>
\endabstract	17	\maketitle	10, <u>11</u>		
environments:		\medskip	66		
abstract	<u>22</u>				