

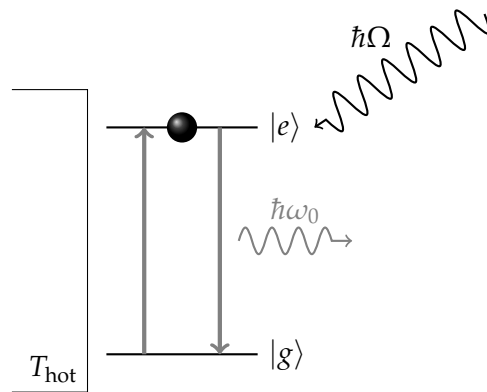
UNIVERSITY OF STUTTGART

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Manual

Sample usage of the thesis.sty layout

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July 14, 2022

Package written by
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Based on a layout by
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Statutory Declaration

I herewith formally declare that I have written the submitted thesis independently. I did not use any outside support except for the quoted literature and other sources mentioned in the paper.

I clearly marked and separately listed all of the literature and all of the other sources which I employed when producing this academic work, either literally or in content.

Anywhere, July 14, 2022

Henri Menke & Nicolai Lang

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"The bomb has been planted!"

Counter Terrorist (1999–present)

Welcome to the `thesis.sty` layout. This layout is based on Nicolai Lang's thesis template, but with my improvements. In the following text I will describe, what this package offers.

1.1 Options

You can load the package with a few options.

```
\usepackage[<options>]{thesis}
```

The several choices for `<options>` are:

- `nouglyheaders`: This will disable the headers used by Nicolai Lang in his thesis. I don't consider the scaled chapter number and the dotted line good style.
- `noweirdcolors`: In the original layout the background color of each theorem box was defined in terms of the header color. It is better style to use the same background color everywhere. You can get a consistent background color (`gray0`) with this option.
- `dottedsubsection`: In the thesis, the subsections don't have a dotted line beneath their title. If you want one, use this option.
- `nostyledepigraph`: The styling of the epigraph can be turned off by this option.

- `nowrongspacing`: Originally in the environment `markformula` you have too much space on the right, such that the equation number got displaced. This option cancels this extra space.
- `consistency`: This combines the options `nouglyheaders`, `noweirdcolors` and `nowrongspacing` to give you a more consistent layout. This manual is typeset with this option.
- `styledtoc`: Typesets the Table of Contents in a style manner (no `enddot` for numbers, coloured chapters, left aligned page numbers. This manual is typeset with this option.
- `alignedtoc`: The Table of Contents is left aligned (no indentation for lower sectioning levels. This has no effect without `styledtoc`.
- `dottedtoc`: Numbers in the Table of Contents are right aligned with dot leaders. This has no effect without `styledtoc`.
- `notitles`: Turns off styling of chapters, sections, etc.

Furthermore this package offers some new commands.

It is a pain to handle unnumbered sections with `titlesec` and the solutions are all very buggy. That's why `thesis.sty` offers you `numfix{<section>}`. You use it like

```
\numfix{\section*{Options}}
```

Then you will get the dotted line under the section commands right.

Also there is `\makethesistitle`. It typesets a titlepage similar to `\maketitle`, but with some extra stuff. For it to work you will need the following statements before issuing `\makethesistitle`:

```
\title{<title>}
\author{<list of authors>} % don't use \and
\university{<university>}
\institute{<institute>}
\supervisor[<Supervised by>]{<supervisor of the thesis>}
\thesisname{<default: Thesis>} % optional
\secondarycorrector[<Secondary corrector>]{<other supervisor>} % optional
\date{<date>} % optional
```

With the command `\declaration` you get a page which holds a statutory declaration, that you did the work yourself (The starred version `\declaration*` does no `\cleardoublepage` before and doesn't set the `pagestyle` to empty). If you don't like the title or the body text, you can customize these by doing `\renewcommand` on two items `\declarationtitle` and `\declarationbody`. Separate lines by `\\`.


```

\renewcommand\declarationtitle{Statutory Declaration}
\renewcommand\declarationbody{
  I herewith formally declare that I have written the submitted
  thesis independently. I did not use any outside support except
  for the quoted literature and other sources mentioned in the paper.\\
  I clearly marked and separately listed all of the literature
  and all of the other sources which I employed when producing
  this academic work, either literally or in content.
}

```

1.2 Customizing the headings

You can control the sizes of the boxes, which hold the sectioning numbers via macros like `\chapterboxwidth`. In the following you can see the available lengths and their default values:

```

\chapterboxwidth=8em
\chapterboxheight=20ex
\sectionboxwidth=2.3em
\sectionboxheight=3.5ex
\subsectionboxwidth=2.6em
\subsectionboxheight=3ex
\subsubsectionboxwidth=3em
\subsubsectionboxheight=2ex

```

This manual sets

```

\chapterboxheight=15ex
\chapterboxwidth=10em

```

Keep in mind, that you will need to set this *after* you loaded `thesis.sty`.

1.3 Using the Layout with article-like Classes

The package automatically checks, if `\chapter` is defined and provides a style suited for articles, if `\chapter` isn't defined.

1.4 Packages loaded by `thesis.sty`

The following packages are loaded by `thesis.sty` with the listed options. If you want to specify any extra options to these packages, do so via

```
\PassOptionsToPackage{<options>}{<package>}  
before \usepackage{thesis}.
```

1.4.1 List of loaded packages

```
amssymb  
xcolor  
mdframed    -    framemethod=tikz  
fancyhdr  
caption  
titlesec    -    explicit  
tocloft     -    titles  
tikz  
epigraph  
csquotes
```

- csquotes will not be loaded if option `nostyledepigraph` is employed.
- tocloft will only loaded if option `styledtoc` is active.
- titlesec will not be loaded if `notitles` is specified.

Chapter 2

Definitions

"I'll be back!"

Arnold Schwarzenegger [1]

2.1 Colors

The colors available by default from the layout are listed in table 2.1.

There are some aliases for colors, for instance

```
■ \definecolor{captioncolor}{named}{parablue}
```

You redirect these easily by doing things like

```
\definecolor{captioncolor}{named}{tikzorange}
```

2.2 Theorems

Many different styles of theorems are provided by `thesis.sty`. In the following you will find a showcase with the name and some sample text. Most of them are equivalent in their style, but the title differs. *Note that these boxes CANNOT BREAK through pages.*

```
\begin{<title>}[\texttt{<title>}]  
  Sample text.  
\end{<title>}
```

Color	Type	Code
intlink	HTML	424B5C
top	HTML	646974
codeback	HTML	F2F2F2
seccolor	HTML	646974
secblock	HTML	2C3038
parablue	HTML	1357BD
myblue	HTML	1357BD
refblue	HTML	26B1FF
mygreen	HTML	10741E
mygray	HTML	2C3038
mylightgray	HTML	3661A0
dotgray	HTML	4B4B52
tikzorange	HTML	FF8811
tikzgrey	HTML	686868
tikzlight	HTML	DEE0E0
tikzred	HTML	E58A19
tikzgreen	HTML	2E7CBF
gray0	HTML	F1F1F1
gray1	HTML	DFDFDF
gray2	HTML	CDCDCD
gray3	HTML	BBBBBB
gray4	HTML	A6A6A6
gray5	HTML	8E8E8E
gray6	HTML	D6D6D6
gray7	HTML	404040

■ **Table 2.1.:** Color table.

► **Result 2.1: result**

Sample text.

► **Definition 2.1: definition**

Sample text.

► **Proposition 2.1: proposition**

Sample text.

► Lemma 2.1: lemma

Sample text.

► Theorem 2.1: theorem

Sample text.

► Corollary 2.1: corollary

Sample text.

► Conjecture 2.1: conjecture

Sample text.

► Remark 2.1: note

Sample text.

2.2.1 markformula

You can highlight a formula by enclosing it in the `markformula` environment.

```
\begin{markformula}
  \begin{equation}
    \nabla\cdot\vec{E} = 4 \pi \varrho
  \end{equation}
  \begin{equation}
    \int_{\Omega}\nabla\cdot\vec{E}(\vec{r})\,\mathrm{d}^3r
    = \oint_{\partial\Omega}\vec{E}(\vec{r})\cdot\vec{n}\,\mathrm{d}^2r
  \end{equation}
\end{markformula}
```

$$\nabla \cdot \vec{E} = 4\pi\varrho \quad (2.1)$$

$$\int_{\Omega} \nabla \cdot \vec{E}(\vec{r}) \, \mathrm{d}^3r = \oint_{\partial\Omega} \vec{E}(\vec{r}) \cdot \vec{n} \, \mathrm{d}^2r \quad (2.2)$$

2.3 Captions

Captions are defined to be centered if the caption is only one line. More lined captions are aligned left, without indentation.



■ **Figure 2.1.:** Sample caption, which is so long that it occupies two lines. You can see that the second line has no indentation at all.

2.4 itemize

The itemize is customized. In the original thesis, a picture was included for the itemize symbol. I tried to reproduce the picture in *TikZ* which is now the default itemize symbol.



2.5 epigraph

You can start off every chapter with an inspirational quote, like in this manual. You use it like

```
\epigraph{<quote>}{<author>}
```

Heading on Level 0 (chapter)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

A.1 Heading on Level 1 (section)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

A.1.1 Heading on Level 2 (subsection)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text

should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Heading on Level 3 (subsubsection)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

■ Heading on Level 4 (paragraph)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

A.2 Lists

A.2.1 Example for list (itemize)

- First item in a list
- Second item in a list
- Third item in a list
- Fourth item in a list
- Fifth item in a list

Example for list (4*itemize)

■ First item in a list

- First item in a list
 - * First item in a list
 - First item in a list
 - Second item in a list
 - * Second item in a list
- Second item in a list

■ Second item in a list

A.2.2 Example for list (enumerate)

1. First item in a list
2. Second item in a list
3. Third item in a list
4. Fourth item in a list
5. Fifth item in a list

Example for list (4*enumerate)

1. First item in a list
 - a) First item in a list
 - i. First item in a list
 - A. First item in a list
 - B. Second item in a list
 - ii. Second item in a list
 - b) Second item in a list
2. Second item in a list

A.2.3 Example for list (description)

First item in a list

Second item in a list

Third item in a list

Fourth item in a list

Fifth item in a list

Example for list (4*description)

First item in a list

First item in a list

First item in a list

First item in a list

Second item in a list

Second item in a list

Second item in a list

Second item in a list

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