PhD-thesis

Tom de Geus

December 1, 2016

Contents

CHAPTER 1

Document layout

Abstract

This chapter describes the document layout, including the compilation instructions.

Keywords: LaTeX; class; article

T.W.J. de Geus

1.1 Preamble

1.1.1 Introduction

By default most of the standard LaTeX-packages are loaded. Any of these packages can be re-loaded, with other defaults, without problems. In addition the title and author can be specified; see below.

1.1.2 Load class

To load the class use

```
\documentclass{goose-thesis}
```

To use customized fonts, the documents has to be compiled using XeLaTeX. For example:

```
%!TEX program = XeLaTeX
\documentclass[garamond]{goose-thesis}
```

The following fonts are available:

- `garamond`
- `times`
- `verdana`

Furthermore the following options are available

- `narrow`: widen the margins of the page, useful during the review process;
- `doublespacing`: set the line-spacing to double, useful during the review process.
- `namecite`: use names instead of number of citations.
- `sectionbib`: include the bibliography at the end of each chapter.

1.1.3 Title and author

- The *title* is specified using

  ```
  \title{...}
  ```

- The *author* is specified using

  ```
  \author{...}
  ```

- Additionally one could decide to change the author of the PDF-document

  ```
  \hypersetup{pdfauthor={...}}
  ```

1.2 Main text

In the simplest form the thesis will have one bibliography at the end of the documents. It also possible to include a bibliography at the end of each chapter, see Section 1.3.

1.2.1 Structure

The thesis comprises of a main TeX-files and TeX-files for each chapter. Furthermore a `Makefile` can be used to gather the compilation instructions. The suggested structure is as follows

```
main.tex
example_chapter1.tex
example_chapter2.tex
...
library.bib
figures/
```

1.2.2 Main document

The layout is as follows

```
\documentclass[options]{goose-thesis}

\title{...}

\author{...}

...

\begin{document}

  \maketitle

  \setcounter{tocdepth}{0}
  \tableofcontents

  \cleardoublepage
  \include{example_chapter1}

  \cleardoublepage
  \include{example_chapter2}

  ...

  \bibliography{...}

\end{document}
```

Herein the chapters have been included as separate files. Notice that there is a single `\bibliography{...}` entry at the end of the main document. None of the chapters (in the `\include{...}` command) will have such an entry.

1.2.3 Chapters

The layout is as follows

```
\begin{chapter}

\begin{frontmatter}

\begin{abstract}
...
\end{abstract}

\keywords{...}

\begin{remark}
...
\end{remark}

\end{frontmatter}

...
```

```
\appendix

...
```

Notice how each of the chapters has its own appendix.

1.2.4 Compilation

The compilation can be done by compiling the main-file just like any other file.

1.3 Main text – multiple bibliographies

1.3.1 Structure

The thesis comprises of a main TEX-files and TEX-files for each chapter. Furthermore a `Makefile` can be used to gather the compilation instructions. The suggested structure is as follows

```
main.tex
example_chapter1.tex
example_chapter2.tex
...
library.bib
figures/
```

1.3.2 Main document

The layout is as follows

```
\documentclass[sectionbib,...]{goose-thesis}

\title{...}

\author{...}

...

\begin{document}

  \maketitle

  \setcounter{tocdepth}{0}
  \tableofcontents

  \cleardoublepage
  \include{example_chapter1}

  \cleardoublepage
  \include{example_chapter2}

  ...

\end{document}
```

Notice that in this case the main file does not have a `\bibliography{...}` command. Rather, each of the chapter contains this command (unless of course that are no citations in that chapter). Also notice that the `sectionbib` option has been used.

1.3.3 Chapters

The layout is as follows

```
\begin{chapter}

\begin{frontmatter}

\begin{abstract}
...
\end{abstract}

\keywords{...}

\begin{remark}
...
\end{remark}

\end{frontmatter}

...

\bibliography{...}

\appendix

...
```

Notice the `\bibliography{...}` command at the end of the chapter.

1.3.4 Compilation

In this case the compilation is a bit more involved, as several bibliographies have to be created. For this example the steps are included in the following `Makefile`:

```
all:
  xelatex -interaction=nonstopmode example.tex
  xelatex -interaction=nonstopmode example.tex
  bibtex example_chapter1
  bibtex example_chapter2
  xelatex -interaction=nonstopmode example.tex
  xelatex -interaction=nonstopmode example.tex

clean:
  rm *.aux *.bbl *.log *.out *.pdf *.toc *.blg *.fls *.fdb_latexmk
```

1.4 Citations

Citations and references are handled using `natbib`. To cite use

```
\citep{...}  (or \cite{...})
\citet{...}
```

The former only inserted a citation as number. For example [1]. The latter also includes the name(s) of the author(s). For example de Geus [1], world [2].

The bibliography information is stored in a `bib`-file, which is included using

```
\bibliography{...}
```

This command creates a chapter section "References" with the bibliography. By default number citations are used, in which the references appear in the order in which they were cited. In the case that the `namecite` option is used, the citations appear in names in alphabetical order.

Note that a large part of the formatting of BibTEX depends on the formatting of the `bib`-file. A Python-script `bibparse` is available to automatically clean-up the formatting of the `bib`-file. An updated `unsrtnat.bst` is available that includes the `eprint` field.

References

[1] T. W. J. de Geus. Personal website, 2016. URL `http://www.geus.me`.

[2] The world. Wikipedia. URL `http://www.wikipedia.org`.

1.A Some appendix

CHAPTER 2

Another chapter

Abstract

This is another chapter.

2.1 With a section

And a citation [1].

References

[1] The world. Wikipedia. URL `http://www.wikipedia.org`.

2.A And an appendix