

The `uantwerpendocs` classes^{*†}

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2021/08/03

1 Introduction

This package implements the house style of Universiteit Antwerpen (version 2021) for letters, course texts, master/PhD theses, reports and slides (beamer). It also implements a class to format exams. Using these class files will make it easy for you to make and keep your course texts and theses compliant to this version and future versions of the UAntwerpen house style.

If you think (1) there's an error in compliancy w.r.t. the house style, (2) there's a feature missing in this class or theme file, or (3) there's a bug in this package, please, contact me through e-mail (`walter.daems@uantwerpen.be`) about the issue. I'll provide you with an answer and if (and as soon as) possible with a solution to the problem you spotted.

Do you like these class files? You're welcome to send us beer, wine, or just kind words.

2 Synopsis

The `coursetext`, `bamathesis` and `phdthesis` classes¹ are an extension of the standard \LaTeX `book` class. They are intended to be used for writing course texts and master's or PhD theses. They provides a title page that is compliant to the UAntwerpen house style, and they also typeset the rest of your document appropriately.

The `report` class is derived from the standard \LaTeX `report` class. It is intended for writing generic (e.g. research or educational) reports. The `letter` class is derived from the standard \LaTeX `letter` class. It is intended to be used for writing business letters. It is compliant to the house style and allows for using windowed envelopes of the DL format, with right-aligned window.

The `exam` class is derived from the standard \LaTeX `article` class.

^{*}This document corresponds to `uantwerpendocs` 4.1, dated 2021/08/03.

[†]Thanks to Paul Levrie for testing and proofreading.

¹For readability the class names have been abbreviated by omitting the `uantwerpen` prefix

The slides come under the form of a custom beamer theme.

The documentation of the class files for letters, course texts theses, and exams can be found in this document.
The documentation for the beamer theme is embedded in the demo/user-guide presentation `beamerthemeuantwerpenuserguide.pdf`.
Template files for all of the formats can be found below in section 5.1.

Using this package, requires the following packages:

- the `adjustbox` package
- the `babel` package
- the `background` package
- the `color` package
- the `environ` package
- the `eso-pic` package
- the `etooblox` package
- the `expl3` package
- the `fancyhdr` package
- the `geometry` package
- the `graphicx` package
- the `iftex` package
- the `ifthen` package
- the `tikz` package
- the `ulem` package
- the `xparse` package

So make sure these packages are available to your \LaTeX compiler.

You will notice that as of version 4.0 `expl3` and `xparse` are part of the game. Indeed, the `uantwerpendocs` package will be slowly refactored to $\text{\LaTeX}3$ to prepare for a package that is easier to maintain. However, the $\text{\LaTeX}3$ constructs are never exposed to the user of the classes. So: don't worry about it!

3 A note on fonts

The house style of the University of Antwerp recommends using

- Prenton RP Pro for the logos and sublogos; all the logoware is included in this package, so nothing to worry about.
- ITC Officina Sans for posters, titlepages, cards a.s.o.
This font is not a part of the \LaTeX standard fonts. It is also not provided with this package. I cannot do this without incurring legal problems (the font is not free). However, if you have a valid license, for this font, I can help you to set it up, such that you can typeset proper title pages for course texts, PhD theses and the like. Just send me an e-mail.
- Calibri for office-like documents. Just load the `\fontspec` package and issue a `\setmainfont{Calibri}` and you're all set.

Adhering to these fonts is recommended, but not enforced. Personally, I always use a Palatine serif font for my courses. I did not find any better (free) font yet. My second favorite is still the original computer modern font by Donald E. Knuth. You are reading it right now.

4 Portability

These class files should be ready to use with all common modern \LaTeX compilers (PDF \LaTeX , Xe \LaTeX , Lua \LaTeX , ...) from the major \TeX -distributions (TeX_{live}, MikTeX). However, using an old \LaTeX + dvips setup is likely to get you into font problems. Advice: ditch the route via dvi. If you experience other problems, please inform the author.

5 Usage

5.1 Basic Usage

Use the templates provided below. Remember to \LaTeX your source file twice.

Especially in the beamer theme some features require to run \LaTeX twice in order to get the position of some elements correct.

5.1.1 `uantwerpencoursetext` class

Use the following harness for your \LaTeX course text:

```
\documentclass[ti,a4paper]{uantwerpencoursetext}

\usepackage{<include any packages you require here>}
```

```

\title{<put your title here>}
\subtitle{<put your subtitle here>}
\author{<put your name here>}

\courseversion{<put a version identifier here>}
\versionyear{<the publication date of the course here>}

\lecturer{<person teaching the course>}
\degree{<official degree title>}
\course{<course code>}{<name of the course>}

\academicyear{<XXXX-YYYY>}

\begin{document}

    \maketitle

    % put your LaTeX code here

    \finalpage

\end{document}

```

As of version 4.0:

- the faculty is specified as an option to the `\documentclass` construct. You can find the available options in section 5.2.
- you are responsible yourself to provide the correct degree description! Maintaining the a correct list of UAntwerpen bachelor and master programs with all their specializations is beyond my ambition.

5.1.2 uantwerpenbamathesis class

Use the following harness for your L^AT_EX bachelor or master's thesis:

```

\documentclass[ti,a4paper]{uantwerpenbamathesis}

\usepackage{<include any packages you require here>}

\title{<put your title here>}
\author{<put your name here>}
\supervisor{<put supervisor's name(s) here>}{<affiliation goes here>}
\supervisor{<put supervisor's name(s) here>}{<affiliation goes here>}
\supervisor{<put supervisor's name(s) here>}{<affiliation goes here>}
\supervisor{<put supervisor's name(s) here>}{<affiliation goes here>}

% classmarker
\academicyear{<XXXX-YYYY>}

```

```

\begin{document}

    \maketitle

    % put your LaTeX code here

    \finalpage

\end{document}

```

The available faculty options are listed in a table on page 8.

5.1.3 uantwerpenletter class

Use the following harness for your L^AT_EX letter:

```

\documentclass[a4paper,ti]{uantwerpenletter}

% setup fonts according to your specific TeX compiler setup

\usepackage{<include any packages you require here>}

% \logo{<put your logo here>} only specify if you want to use your unit's logo

\sender{<put your name here>}{<put your title/role here>}
\unit{<put your unit here>}
\address{<put your multi-line address here>}
\email{<user name>}{<domain name>}
\phone{<put your phone number here, start with +32>}
\fax{<put your fax number here, start with +32>}
\mobile{<put your mobile number here, start with +32>}
\returnaddress{<put your single-line return address here>}

\to{<name of the addressee goes here>}
\toorganization{<name of the organization goes here>}
\toaddress{<multi-line address of the addressee goes here>}

\date{<specify date - otherwise today>}
\subject{<specify subject>}

\begin{document}

    \maketitle % generates top of the letter

    \opening{Dear <name>}

    <write your letter here>

    \closing{Kind regards,}

    \carboncopy{<put CC people here>}
    \enclosed{<put reference to enclosed documents here>}

```

```
\end{document}
```

The available faculty options are listed in a table on page 8. You may use lists in the `\carboncopy` and `\enclosed` commands. The spacing will be compact.

5.1.4 uantwerpenphdthesis class

```
\documentclass[ti,10pt,twoside,openright,filled]{uantwerpenphdthesis}
```

You may want to use common fonts

```
\usepackage{<include any additional packages you require here>}
```

```
\title{<put your title here>}
```

```
\author{<put your name here>}
```

```
\affiliation{<put your affiliation here>}
```

```
\address{<put your contact details here>}
```

```
\supervisor{<put supervisor's name here>}{<affiliation goes here>}
```

```
\supervisor{<put supervisor's name here>}{<affiliation goes here>}
```

```
\jurychairman{<put chairman's name here>}{<affiliation goes here>}
```

```
\jurymember{<put member's name here>}{<affiliation goes here>}
```

```
\jurymember{<put member's name here>}{<affiliation goes here>}
```

```
\jurymember{<put member's name here>}{<affiliation goes here>}
```

```
\degree{<put official degree name here>}
```

```
\defenselocation{<put location of defense here>}
```

```
\defensedate{<put defense year here>}
```

```
\titlepageimage{<set file name of title page image here>}
```

```
\isbn{<put ISBN13 number here>}
```

```
\depot{<put Depot number here>}
```

```
\begin{document}
```

```
\maketitle
```

```
\frontmatter
```

```
\tableofcontents
```

```
\mainmatter
```

```
% write your PhD text here
```

```
\appendix
```

```
% write appendix material here
```

```
\makefinalpage
```

```
\end{document}
```

The available faculty options are listed in a table on page 8.

5.1.5 uantwerpenreport class

```
\documentclass[ti,10pt,twoside,openright,filled]{uantwerpenreport}

You may want to use common fonts
\usepackage{<include any additional packages you require here>}

\title{<put your title here>}
\author{<put your name here>}
\affiliation{<put your affiliation here>}
\address{<put your contact details here>}

\titlepageimage{<set file name of title page image here>}

\begin{document}

\maketitle
\frontmatter
\tableofcontents
\mainmatter

% write your PhD text here

\appendix

% write appendix material here

\makefinalpage

\end{document}
```

The available faculty options are listed in a table on page 8.

5.1.6 uantwerpenbeamer theme

```
\documentclass[aspectratio=1610]{beamer}
% options that select the proper faculty in the beamertheme:
% be, fbd, ggw, lw, ow, re, sw, ti, we, iob (no option = mother
% theme)
\usetheme[ti]{uantwerpen}
\usepackage[dutch]{babel}

\title{This is your title}
\subtitle{This is your subtitle - omit if you don't need this}
\date{This is the date - will be today if omitted}
\author{This is your name - omit if you don't need this}

\begin{document}
```

```

\begin{frame}[negativefill]
  \maketitle
\end{frame}

\begin{frame}
  {Advice}
  {\ldots is cheap}
  Search for the \texttt{beamerthemeuantwerpenuserguide.pdf} for
  more info (or the corresponding \texttt{.tex} file!
\end{frame}

\end{document}

```

5.2 The class options explained

The classes have several options. They are listed below. After every option, it has been indicated to which class the option applies (between square brackets, without prefix uantwerpen).

xx(x) [letter / coursetext / bamathesis / phdthesis / report / beamertheme]

Option	Faculty
be	Faculty of Business and Economics Faculteit Bedrijfswetenschappen en Economie
fb	Faculty of Pharmaceutical, Biomedical and Veterinary Sciences Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
ggw	Faculty of Medicine and Health Sciences Faculteit Geneeskunde en Gezondheidswetenschappen
lw	Faculty of Arts Faculteit Letteren en Wijsbegeerte
ow	Faculty of Design Sciences Faculteit Ontwerpwetenschappen
re	Faculty of Law Faculteit Rechten
sw	Faculty of Social Sciences Faculteit Sociale Wetenschappen
ti	Faculty of Applied Engineering Faculteit Toegepaste Ingenieurswetenschappen
we	Faculty of Science Faculteit Wetenschappen
iob	Institute of Development Policy Instituut voor Ontwikkelingsbeleid- en beheer

cameraready [phdthesis/coursetext]

For the **phdthesis** class, this option forces the book format to be printed on A4 with bleed space. This accomodates what your printshop requires you to provide as a camera-ready copy.

For the **coursetext** class, this options removes the colored areas and the logo

from the titlepage (and removes the finalpage altogether) to allow for universitas to print the text of your titlepage on a standard sheet that contains these colored areas and the logo (pre-printed).

copyright	[coursetext] This option forces printing a watermark on every page. For the paper version of your document, this is inappropriate, but for any e-copy you make available, this may be appropriate;
examiner	[exam] This option allows to set the exam class in examiner mode, mentioning the examiner mode on every page (as regular text in the header and also in a watermark) to make sure you never hand out that copy to students and suppressing the fillout pages.
filled	[letter / coursetext / bamathesis / phdthesis / report] This option causes the text to be filled (simultaneous left and right alignment). Though this setting is not recommended, it is provided because the default <code>\raggedright</code> cannot be undone. The filled option prevents the <code>\raggedright</code> from being issued. However, if you care about the typographic readability of your text, you shouldn't use this option.

Common sets of options depend on the purpose:

- to make a text ready for electronic distribution: **a4paper**, **copyright**.
- to make a camera-ready text (for printing): **a4paper**
- to make a camera-ready coursetext (for printing at universitas): **a4paper**, **cameraready**
- to make a letter: no options (filling a letter is discouraged)
- to make an exam: no options (filling an exam is discouraged)
- to make a PhD text: **twoside**, **openright** and (optionally) **filled**
- to make a camera-ready PhD text: **twoside**, **openright**, **cameraready** and (optionally) **filled**
- to make a report: **twoside**, **openright** and (optionally) **filled**

5.3 The macros explained

5.3.1 Macros for the coursetext, bamathesis, phdthesis classes

\academicyear	[coursetext / bamathesis] (mandatory) Use this macro to specify the academic year in full, i.e. in the form XXXX-YYYY.
\author	[coursetext / bamathesis / phdthesis / report] (mandatory) This macro sets the author of the document. It also sets the pdfauthor tag of the hyperref package (if it is loaded), so that the PDF-document meta-information is correct.
\copyrightnotices	[coursetext / report] (optional)

Use this macro to specify additional copyright notice messages to appear in the copyright notice on the bottom of page 2 of your course text.

`\course` [coursetext] (mandatory)
 Code (first argument) and name (second argument) of the curriculum course this coursematerial or exam belongs to. The code should be of the form: TNNNFFFAAA, with:

Code	Explanation
T	a number indicating the type of programme (1 for Bachelor courses, 2 for Master courses , 5 for specific courses of preparatory programmes)
NNN	a number assigned by the Faculty's administration
FFF	the acronym of your Faculty, e.g., FTI
AAA	an alphanumeric code assigned by the Faculty's administration

An example of such a code: 1001FTIWIS, for the first-semester mathematics course of the Faculty of Applied Engineering.

`\courseversion` [coursetext] (optional)
 This macro indicates which version of the course this is.

`\defensedate` [bamathesis / phdthesis] (mandatory)
 Date of the bamathesis defense in Dutch, in the form 'month year', e.g. "juni 2012". In case of a PhD thesis, only the year should be mentioned.

`\defenselocation` [bamathesis / phdthesis] (optional)
 Location of the defense. Defaults to "Antwerpen".

`\diploma` [bamathesis] (discontinued)
 This macro is no longer used. Use `\degree{}` instead.

`\lecturer` [coursetext] (mandatory)
 You can add one or more lecturers to the course notes (in Dutch: titularis). If there are multiple persons, please, use the macro multiple times.

`\phddegree` [phdthesis] (discontinued)
 This macro is no longer used. Use `\degree{}` instead.

`\degree` [bmthesis,phdthesis,coursetext] (mandatory)
 This is the official degree name (in the appropriate language, possibly mixed "dutch (english)"). Specify the official title of your diploma. This must be the official title. For bachelor and master programmes in Dutch, it must be the Dutch title. For programmes in English ti may be the English title. For PhD degrees, language constraints are less strict.
 Consult <https://www.hogeronderwijsregister.be> for correct bachelor and master degree titles. Consult the Doctoral bylaws of the university for correct PhD degree titles.

`\programme` [coursetext] (discontinued)
 This macro is no longer used. Use `\degree{}` instead.

`\publisher` [coursetext] (mandatory)
 This macro sets the publisher information of the document. It is printed on the

front page. It defaults to the reprographic service of campus Groenenborger, one of the standard printing services of Universiteit Antwerpen. Separate the different fields (name, address, a.s.o) using a pipe symbol.

`\publishercode` [coursetext] (mandatory)
This macro sets the publisher code of the document. It is printed on the front page. This is code that the publisher uses for its internal administration. It may be a proprietary code, or an ISBN number.

`\subtitle` [coursetext / phdthesis / report] (optional)
This macro sets the title of the document. You may use this

- to further clarify the title
- to indicate the nature of this document

The latter is to be considered when you want to provide multiple documents as parts of the full course text (e.g., Course Notes, Formula Collection, Exercise Book, Solution Book). This macro also sets the `subject` tag of the hyperref package (if it is loaded), so that the PDF-document meta-information is correct.

`\supervisor` [bamathesis / phdthesis] (mandatory)
Specifies the person(s) that promote(s)/supervise(s) the thesis. Please, use the macro multiple times if needed.

`\title` [coursetext / bamathesis / phdthesis / report] (mandatory)
This macro sets the title of the document. It also sets the `pdftitle` tag of the hyperref package (if it is loaded), so that the PDF-document meta-information is correct.

`\titlepageimage` [phdthesis / report] (optional)
This sets the filename of the central image on the title page to appear clipped within the curves. For PhD theses this is highly advised. For course texts, this is optional. If the image is not set, a flat colored area will appear. This is part of the house style.

`\versionyear` [coursetext / report] (mandatory)
This is to be the year in which you published the current version of the course in the form YYYY.

5.3.2 Macros for the letter class

`\address` [letter] (mandatory)
Address of the sending unit (or faculty). This can be different from the return address. Newlines are allowed and encouraged.

`\carboncopy` [letter] (optional)
List of persons receiving a copy of this letter. Format at will.

`\closing` [letter] (mandatory)
Closing clause of the letter. E.g. 'Best regards,'.

`\date` [letter] (optional)

Date of the letter. If not specified today's date (at the time of running L^AT_EX) will be used.

\email [letter] (optional)
E-mail address of the sending person, or the administrative person tracking the letter. This must definitely be someone that can answer questions related to this letter.

- first argument: user name
- second argument: domain name

\enclosed [letter] (optional)
List of enclosed documents. Format at will.

\fax [letter] (optional)
Probably facsimile is not used anymore, but anyway: fax number of the sending person. See also **\email**.

\logo [letter] (optional)
file name of an alternative logo to use. The file name must be the name of a file in the search path of type PDF. If this macro is not used, The default logo of the university or your faculty/institute will be used.

\mobile [letter] (optional)
Mobile phone number of the sending person. See also **\email**.

\opening [letter] (mandatory)
Opening address of the letter. E.g. 'Dear X,'.

\phone [letter] (optional)
Phone number of the sending person. See also **\email**.

\returnaddress [letter] (mandatory)
This is a short return address (listed in small font on top of the destination address (such that it is visible in a windowed envelope (European format))). It should fit on a single line. Typically we list an acronym for the unit, a room number, a campus name and address. The goal is to get the undelivered letter back to the person that can take action accordingly.

\sender [letter] (mandatory)
Description of the person writing the letter.

- first argument: name of the person writing the letter
- second argument: title / role of the person

Newlines are not allowed in the arguments.

\signature [letter] (optional)
Add a signature (in between the closing statement of the letter and the sender's name. This might be a text message or a picture of your signature.

\subject [letter] (mandatory)
Short descriptive subject that describes the contents of the letter.

<code>\to</code>	[letter] (mandatory) Name of the addressee. Newlines are allowed. Preferably name and role are split over two lines.
<code>\toaddress</code>	[letter] (mandatory) Address of the addressee. Newlines are allowed. The address should fit on max. 3 lines.
<code>\toorganization</code>	[letter] (optional) Name of the organization that employs the addressee.
<code>\unit</code>	[letter] (optional) Name of the unit to which the person belongs. This can be a research group, a laboratory, an administrative division, etc. Newlines are allowed.

5.3.3 Macros for the exam class

<code>\author</code>	[exam] (mandatory) The author of the exam (may be multiple authors, separated by commas). On the title page, these will be labeled as 'Professor(s) - Titularis(sen)'.
<code>\academicyear</code>	[exam] (mandatory) Use this macro to specify the academic year in full, i.e. in the form XXXX-YYYY.
<code>\course</code>	[exam] (mandatory) see description of <code>\course</code> macro on page 10.
<code>\degree</code>	[exam] (mandatory) This is the official degree name (in the appropriate language, possibly mixed "dutch (english)"). Specify the official title of your diploma. This must be the official title. For bachelor and master programmes in Dutch, it must be the Dutch title. For programmes in English it may be the English title. For PhD degrees, language constraints are less strict. Consult https://www.hogeronderwijsregister.be for correct bachelor and master degree titles. Consult the Doctoral bylaws of the university for correct PhD degree titles.
<code>\examdate</code>	specifies the date of the exam. We recommend the YYYY-MM-DD format, but you are free to choose your own coding scheme for dates. We advise against using UNIX epoch time, to avoid problems in the first semester exams in 2038.
<code>\examgroupnumber</code>	[exam] mentions the group number (may be empty)
<code>\examlength</code>	specifies the length of the exam in a unit of time, e.g. '4h'
<code>\exampart</code>	[exam] (mandatory) Description of the part of the course the exam covers. Often the evaluation of a course consists of multiple evaluation elements (e.g. a written exam, a portfolio defense and lab reports). Using this macro you can indicate the part this exam covers. E.g. it could be 'Written Exam' (to distinguish from the other parts 'portfolio defense' and 'lab reports').
<code>\extrainfo</code>	specifies the extra information that appears on the back of the title page, regarding

the materials that can be used during the examination and cautioning the students not to commit fraude. You can specify an optional first argument 'firstpage', such that your extra info starts on the first page, below the title block. In that case the extra info will also not be terminated with a clearpage (as we assume you want to conserve space).

- `\lecturer` [exam] (mandatory)
You can add one or more lecturers to the course notes (in Dutch: titularis). If there are multiple persons, please, use the macro multiple times.
- `\programme` [exam] (discontinued)
This macro is no longer used. Use `\degree{}` instead.
- `\room` specifies the rooms in which the exam will take place. This is useless info for the student, but may be of convenience for you as author or supervisor of the exam. Use UAntwerpen standard room designators, e.g. 'G.U.025' for room number 025, on the Groenenborgercampus in the U-building. If your exam is taken in multiple rooms, just specify multiple `\room{}` commands.
- `\studentnr` specifies the exam copy number. This will appear on every page of the exam, easing the reassembly of pages that do not contain any name. Moreover, it allows for blind correction as the student only writes his name on the front page.
- `\tend` specifies the end time of the exam in a format identical to the one chosen for `\tstart`.
- `\tstart` specifies the start time of the exam, preferable in the format 'HHhMM', e.g. '08h30'.

5.4 Examples

5.4.1 uantwerpencoursetext

```
<*ct-example>
\documentclass[ti,a4paper,11pt,oneside,openright,cameraready]{uantwerpencoursetext}

\usepackage[english,dutch]{babel}
\usepackage{kantlipsum} % this is just for some dummy text, please remove
\title{Z\'agen, zoeken en zuchten}
\subtitle{Cursusnota's}
\author{Walter Daems en Paul Levrie}

\courseversion{1.3}
\versionyear{2021}

\lecturer{Zoltan Zo\'ekers}
\lecturer{Siana Sigh}
\lecturer{Zeger de Z\'ager}

\degree{Master of Science in de industriële wetenschappen:
elektronica-ICT}
\course{2023FTIZZZ}{5-Zoekmachines in een zaagperspectief}
\course{2045FTIIII}{6-Zaagmachines in \'e\'en zuchtperspectief}
```

```

\academicyear{2021-2022}

\publisher{Universitas Cursusdienst |
  Prinsesstraat 16 |
  2000 Antwerpen |
  T +32 3 233 23 73 |
  E info@cursusdienst.be}

\publishercode{C11111102}

\copyrightnotices{
  The graphics in this document have been typeset using \texttt{TikZ}.\
  This document has been \TeX-ed on a GNU/Linux workstation.
}
\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*[Inleiding]

\kant[1]
\chapter{Onzin voor dummies}

\section{Het gebeuren}
\kant[2]
\begin{equation}
  e^{-j\pi} + 1 = 0
\end{equation}

\kant[3]
\section{En waartoe het geleid heeft}

\kant[4]

\subsection{Herhaling}

\kant[5]

\subsection{Begint vervelend te worden}

\kant[6]
\newpage

\subsection{Begint echt vervelend te worden}

\kant[7-10]

\chapter{Besluit}

```

```

\appendix

\chapter{Symbolen}
\chapter{Romeinse sprekers}
\chapter{Referentielijst}

\makefinalpage

\end{document}
</ct-example>

```

5.4.2 uantwerpenbamathesis

```

<*bmt-example>
\documentclass[a4paper,11pt,twoside,openright,english,ti]{uantwerpenbamathesis}

\usepackage[dutch]{babel} % or english if your text is in English
\usepackage{kantlipsum} % this is just for some dummy text, please remove

\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% New: you must load the hyperref package
% yourself! This allows you to put it in the
% correct order with the other packages you load!

\title{Minimax optimalisatie voor performantieruimtemodellering}
\author{Bert Bibber}

\supervisor{prof. dr. ir. Kumulus}{Universiteit Antwerpen}
\supervisor{prof. dr. Hilarius Warwinkel}{TNT-Bang, N.V.}
\supervisor{ing. Piet Pienter}{POM}

\academicyear{2021-2022}
\degree{Bachelor of Science in de industriële wetenschappen - elektronica-
ICT}
\defenselocation{Antwerpen}
\defensedate{juni 2021}

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}

\kant[1]

\chapter{Onderzoeksvraag}

```



```

\section{Het gebeuren}

\kant[2]

\begin{equation}
e^{-j\pi} + 1 = 0
\end{equation}

\kant[3]

\chapter{Literatuurstudie}

\chapter{Theoretische achtergrond}

\chapter{Eigen realisatie}

\chapter{Besluit}

\appendix

\chapter{Symbolen}
\chapter{Referentielijst}

\makefinalpage

\end{document}
</bmt-example>

```

5.4.3 uantwerpenphdthesis

Dutch

```

<*pt-example1>
\documentclass[ti,10pt,twoside,openright,filled]{uantwerpenphdthesis}

You may want to use common fonts
\usepackage{mathptmx}
\iftutex
\usepackage{fontspec}
\setmainfont{Calibri}
\setsansfont{Calibri}
\else
\usepackage{cmbright}
\fi

\usepackage[dutch]{babel} % or dutch if your text is in Dutch
\usepackage{kantlipsum} % this is just for some dummy text, please remove

\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% New: you must load the hyperref package
% yourself! This allows you to put it in the

```

```

% correct order with the other packages you load!

\title{Harmonische Signaalanalyse\met behulp van Lineaire
  Operatoren}
\subtitle{Waarom moeten titels van doctoraatsthesisen toch altijd
  lang en onverstaanbaar zijn?}
\author{Ing. Theofiel Hoekaff}
\affiliation{Universiteit Antwerpen\\
  Faculteit Toegepaste Ingenieurswetenschappen\\
  Co-design of Cyber-Physical Systems (Cosys-Lab)}
\address{Groenenborgerlaan 171, 2020 Antwerpen, Belgi\ "e\\
  M: theofiel.hoekaff@uantwerpen.be\\
  T: +32 265 00 00
}

\supervisor{prof. dr. W. Vlaams}{Universiteit Antwerpen, Belgi\ "e}
\supervisor{prof. dr. J. Stekker}{Universiteit Antwerpen, Belgi\ "e}

\jurychairman{prof. dr. P. Dalinckx}{Universiteit Antwerpen, Belgi\ "e}

\jurymember{prof. dr. J. Dezerooder}{Universiteit Antwerpen, Belgi\ "e}
\jurymember{prof. dr. P. De Tollenaere}{Flanders Make, Belgi\ "e}
\jurymember{prof. dr. M. Byr}{IMEC, Nederland}

\degree{doctor in de toegepaste ingenieurswetenschappen}
\defenselocation{Antwerpen}
\defensedate{2021}
\titlepageimage{Images/uantwerpen-keyboard.jpg}

\isbn{987-90-57285-34-7} % don't specify this if you don't want one
\depot{D/2021/12.293/03} % idem

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}

\kant[1]

\chapter{Onderzoeksvraag}

\section{Het gegeven}

\kant[2]

\begin{equation}
e^{-j\pi} + 1 = 0
\end{equation}

```

```

\kant[3-17]

\chapter{Literatuurstudie}

\kant[18-19]

\chapter{Theoretische achtergrond}

\kant[20-21]

\chapter{Eigen realisatie}

\kant[22-24]

\chapter{Besluit}

\kant[25]

\appendix
\chapter{Symbolen}

\chapter{Publicaties}
Put your bibliography here using BibTeX

\makefinalpage

\end{document}
</pt-example1>

```

English

```

<*pt-example2>
\documentclass[ti,10pt,twoside,openright,filled,cameraready]{uantwerpenphdthesis}

use some fancy font
\usepackage{newpxtext}
\usepackage{newpxmath}

\usepackage[english]{babel} % or dutch if your text is in Dutch
\usepackage{kantlipsum} % this is just for some dummy text, please remove

\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% New: you must load the hyperref package
% yourself! This allows you to put it in the
% correct order with the other packages you load!

\title{Harmonic Signal analysis \\\based on Linear Operators}
\subtitle{How did Mindy linearly kill Mork's IC signal analyzer?}
\author{Ing. Theodore Edgeoff}
\affiliation{University of Antwerp\\
Faculty of Applied Engineering\\

```

```

Cosys-Lab}
\address{Groenenborgerlaan 171, 2020 Antwerpen, Belgi\"e\\
M: theofiel.hoekaff@uantwerpen.be\\
T: +32 265 00 00
}

\supervisor{prof. dr. W. Vlaams}{University of Antwerp, Belgium}
\supervisor{prof. dr. J. Stekker}{University of Antwerp, Belgium}

\jurychairman{prof. dr. P. Dalinckx}{University of Antwerp, Belgium}

\jurymember{prof. dr. J. Dezeroeder}{University of Antwerp, Belgium}
\jurymember{prof. dr. P. De Tollenaere}{Flanders Make, Belgium}
\jurymember{prof. dr. M. Byr}{IMEC, The Netherlands}

\degree{doctor in applied engineering}
\defenselocation{Antwerpen}
\defensedate{2021}
\titlepageimage{Images/uantwerpen-keyboard.jpg}

\isbn{987-90-57285-34-7}
\depot{D/2021/12.293/03}

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Introduction}

\kant[1]

\chapter{Research question}

\section{The datum}

\kant[2]

\begin{equation}
e^{-j\pi} + 1 = 0
\end{equation}

\kant[3-17]

\chapter{Literature review}

\kant[18-19]

\chapter{Theoretical background}

```

```

\kant[20-21]

\chapter{Technical results}

\kant[22-24]

\chapter{Conclusion}

\kant[25]

\appendix

\chapter{Symbols}

Put your bibliography here using BibTeX

\makefinalpage

\end{document}
</pt-example2>

```

5.4.4 uantwerpenreport

```

<*rp-example>
\documentclass[10pt,twoside,openright,filled]{uantwerpenreport}

You may want to use common fonts
\usepackage{mathptmx}
\iftutex
\usepackage{fontspec}
\setmainfont{Calibri}
\setsansfont{Calibri}
\usepackage{sansmathaccent}
\else
\usepackage{cmbright}
\fi

\usepackage[dutch]{babel} % or dutch if your text is in Dutch
\usepackage{kantlipsum} % this is just for some dummy text, please remove

\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% New: you must load the hyperref package
% yourself! This allows you to put it in the
% correct order with the other packages you load!

\title{De toepassing van roomijs-derivaten in beton}
\subtitle{Het belang van een smaakvolle architectuur}
\author{Ing. Jan Bouwblauw}
\extra{Onderzoeksrapport}
\affiliation{Universiteit Antwerpen | Building Research Group}
\address{Groenenborgerlaan 171, 2020 Antwerpen, Belgi\''e\\
M: jan.bouwblauw@uantwerpen.be\\

```

```

T: +32 265 00 00
}

\versionyear{2021}

\titlepageimage{Images/uantwerpen-keyboard.jpg}

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}

\kant[1]

\chapter{Smaken en smaakpapillen}

\section{Het gegeven}

\kant[2]

\begin{equation}
e^{-j\pi} + 1 = 0
\end{equation}

\kant[3-17]

\chapter{Experimentele setup}

\kant[18-19]

\chapter{Resulaten}

\kant[20-21]

\chapter{Conclusie}

\kant[22-24]

\chapter{Advies}

\kant[25]

\appendix
\chapter{Symbolen}

\chapter{Publicaties}
Put your bibliography here using BibTeX

```

```
\makefinalpage
```

```
\end{document}
```

```
</rp-example>
```

5.4.5 uantwerpenletter

Plain example

```
<*le-example>
```

```
\documentclass[ti,a4paper]{uantwerpenletter}
```

```
% As a good UAntwerpen citizen, you would use the calibri font.
```

```
% As this only works for XeLaTeX or LuaLaTeX, we chose to include
```

```
% cmbright in any other case.
```

```
\iftutex
```

```
\usepackage{fontspec}
```

```
\setmainfont{Calibri}
```

```
\else
```

```
\usepackage{cmbright}
```

```
\fi
```

```
\usepackage[english]{babel}
```

```
\usepackage{kantlipsum} % this is just for some dummy text, please remove
```

```
\sender{prof. Walter Daems}{Senior Lecturer}
```

```
\unit{Cosys-Lab}
```

```
\address{
```

```
  Campus Groenenborger\\
```

```
  Groenenborgerlaan 171\\
```

```
  B-2020 Antwerpen\\
```

```
  BELGIUM}
```

```
\email{walter.daems}{uantwerpen.be}
```

```
\phone{+32 3 265 98 43}
```

```
\mobile{+32 499 355 115}
```

```
\returnaddress{FTI - U.301 -- Groenenborgerlaan 171, 2020 Antwerpen, BELGIUM}
```

```
\to{prof. B. Bonette}
```

```
\toorganization{Mumford University}
```

```
\toaddress{
```

```
  450 Morning Mall\\
```

```
  Mumford, DX 94305-2004\\
```

```
  USA}
```

```
\date{January 3, 2016}
```

```
\subject{Congratulations for online video lectures}
```

```
\begin{document}
```

```
  \maketitle
```

```
  \opening{Dear prof. Bonette,}
```

I'd like to congratulate you and the other professors of your university on the very instructive video lectures provided by your University. They are valued very highly.

You inspired many a professor at our university to provide more technical content beyond classical paper courses. Based on your inspiring lectures, some students desire to candidate themselves for taking an internship at your university. You can find their details enclosed.

Below, you can find a few more paragraphs to illustrate that this class can generate multipage letters.

```
\kant[1-3]

\closing{Kind regards,}
% you might want to insert a signature picture or text:
% \signature{\includegraphics{signature.jpg}}
\carboncopy{prof. S. Mariotte, Mumford University}
\enclosed{
  \begin{enumerate}
    \item list of course numbers that are most frequently viewed at
      our university (1pp)
    \item a list of students desiring to take an internship at
      Mumford University (2pp)
  \end{enumerate}
}
\end{document}
</le-example>
```

Example with configuration file

Probably, one has to write many letters. The sender details will be most certainly valid for many an occasion. Therefore, you might want to consider putting this default setup in a configuration file, e.g. `uantwerpenletter.cfg`:

```
<*le-cfg>
% configuration file for uantwerpenletter class
\iftutex
\usepackage{fontspec}
\setmainfont{Calibri}
\else
\usepackage{cmbright}
\fi

\sender{prof. Walter Daems}{Senior Lecturer}
\unit{Cosys-Lab}
\address{
  Campus Groenenborger\\
  Groenenborgerlaan 171\\
  B-2020 Antwerpen\\
  BELGIUM}
```



```

\email{walter.daems}@uantwerpen.be}
\phone{+32 3 265 98 43}
\mobile{+32 499 355 115}
\returnaddress{FTI - U.301 -- Groenenborgerlaan 171, 2020 Antwerpen, BELGIUM}
</le-cfg>

```

The file can then be loaded in the preamble of your letter:

```

\input{uantwerpenletter.cfg}

```

After loading this configuration file, you may override some elements if this is appropriate.

You may also consider using multiple configuration files in case you have multiple roles in the university. Just make sure they are on your \LaTeX search path.

5.4.6 uantwerpenexam

Below you can find two examples:

- A single column layout (single language) exam
- A double column layout (English-Dutch) exam

If you require more language combinations, ask the author to implement this.

Single column

```

<*ex-example1>
\documentclass[ti,a4paper,10pt]{uantwerpenexam}
\usepackage{newpxtext} % demonstration of some fine font packages
\usepackage{newpxmath}
\usepackage{enumitem}
\usepackage[dutch]{babel} % last language loaded will
                           % determine logo version (change to
                           % [dutch] for a monolingual version)

\course{1876FTIDUM}{5-Bistrologie}
\author{Walter Daems}      % can be omitted if 'lecturers' are sufficient
\lecturer{Walter Daems}
\degree{Bachelor of Science in de industri\ "ele wetenschappen - elektronica-
ICT}
\academicyear{2017-2018}
\exampart{Schriftelijk Examen}
\examgroupnumber{1 (eerste examenkans-inhaal)}
\examdate{2018-01-29}
\examlength{4h}
\tstart{08h30}
\tend{12h30}

```

```

\room{G.U.025}
\extrainfo[firstpage]{
  Belangrijke informatie:\\par
  Het volledige Onderwijs- en Examenreglement (OER) is van toepassing
  op dit examen.
  Toch wil ik vooraf nog een aantal regels duidelijk stellen:
  \begin{enumerate}
  \item Mogen op je tafeltje aanwezig zijn:
    (1) schrijfgierief, los d.w.z. \emph{niet} in een pennenzak (geen
    papier; er zit examenpapier bij de opgaven),
    (2) je rekenmachine (zonder alfanumerieke data en zonder
    geheugenkaarten),
    (3) het formularium.
  \item Volledig \emph{verboden} te gebruiken: alle apparatuur met
    geheugen- of communicatiefunctie zoals GSM, smartphone,
    smartwatch, muziekspeeler, \ldots
    Je tas staat vooraan in het lokaal. Hang je jas aan de kapstok of
    leg hem bij je tas.
  \item Schrijf je naam op het titelblad van de opgave in het daartoe
    voorziene vak. Op de andere bladen schrijf je je naam
    \emph{niet}. Je examenopgave heeft een uniek nummer dat toelaat het
    te identificeren.
  \item Op het einde van het examen geef je \emph{alle} bladen weer af
    aan de aanwezige docent.
  \end{enumerate}
  Succes!
}
\studentnr{127}
\setmcsymbol{\bigcirc}

\begin{document}
\maketitle
\question{[VLATOP-BISTRO]}
\questionweight{3}

Geef de eerste vijf laureaten van de VLATOP-bistro
competitie.

\question{[BECHAMEL]}
\questionweight{7}

Welk van de onderstaande ingrediënten hoort niet thuis in
  een b\'echamel saus:
  \mc{Melk}
  \mc{Boter}
  \mc{Bloem}
  \mc{Eieren}
  \mc{Suiker}

\insertsolutionspagepartial{2}

\insertsolutionspage{}
\clearpage

```

```

\question{[BISTROCULTURE-1]}
\questionweight{10}

\begin{enumerate}[label=\alph*)]
\item Bespreek de evolutie van de Noord-Europese bistrocultuur
gedurende de laatste vijftig jaar.
\item Breng dit in relatie tot de
opkomst van de georganiseerde recensies zoals die van Michelin en
Gault-Millau.
\end{enumerate}

\insertsolutionspagepartial{23}
\foreach \i in {1,2,3} {
\insertsolutionspage{}
}
\foreach \i in {1,2} {
\insertsolutionspage{Kladpapier}
}
\end{document}
</ex-example1>

```

Two columns

```

<*ex-example2>
\documentclass[ti,a4paper,10pt]{uantwerpenexam}
\usepackage{newpxtext} % demonstration of some fine font packages
\usepackage{newpxmath}
\usepackage{enumitem}
\usepackage[dutch,english]{babel} % last language loaded will
                                   % determine logo version (change to
                                   % [dutch] for a monolingual version)

\course{1876FTIDUM}{5-Bistrology}
\lecturer{Walter Daems}
\lecturer{Paul Levrie}
\degree{Bachelor of Science in de industri}"ele wetenschappen - elektronica-
ICT}
\academicyear{2017-2018}
\exampart{Written Exam}
\examgroupnumber{1 (eerste examenkans-inhaal)}
\examdate{2018-01-29}
\examlength{4h}
\tstart{08h30}
\tend{12h30}
\room{G.U.025}
\room{G.U.026}
\extrainfo{
\engdut{
Important information:\\\par
The Education and Examination Regulations (EER) hold for this
examination in full.
However, before starting, I'd like to set some rules straight:

```

```

}
{
  Belangrijke informatie:\\par
  Het volledige Onderwijs- en Examenreglement (OER) is van toepassing
  op dit examen.
  Toch wil ik vooraf nog een aantal regels duidelijk stellen:
}
\engdut{
  \begin{itemize}
  \item \emph{Can be used:} (1) writing gear (\emph{not} in a pencil
    case); you don't need paper; there's plenty of paper in your exam
    copy;
    (2) your calculator (without alphanumerical data and without memory
    cards); (3) the formula collection.
  \end{itemize}
}
{
  \begin{itemize}
  \item Mogen op je tafeltje aanwezig zijn:
    (1) schrijfgerief, los d.w.z. \emph{niet} in een pennenzak (geen
    papier; er zit examenpapier bij de opgaven),
    (2) je rekenmachine (zonder alfanumerieke data en zonder
    geheugenkaarten),
    (3) het formularium.
  \end{itemize}
}
\engdut{
  \begin{itemize}
  \item \emph{May not be used:} all equipment with memory or
    communications facilities, like cell phones, smart phones, smart
    watches, music players, \ldots
    Your bag must be put in the front of the room. Put your coat on the
    hallstand or next to your bag.
  \end{itemize}
}
{
  \begin{itemize}
  \item Volledig \emph{verboden te gebruiken}: alle apparatuur met
    geheugen- of communicatiefunctie zoals GSM, smartphone,
    smartwatch, muziekspeeler, \ldots
    Je tas staat vooraan in het lokaal. Hang je jas aan de kapstok of
    leg hem bij je tas.
  \end{itemize}
}
\engdut{
  \begin{itemize}
  \item Write your name on the title page. Don't write your name on
    the subsequent pages. Your copy has a unique number to identify it
    as yours.
  \end{itemize}
}
{
  \begin{itemize}
  \item Schrijf je naam op het titelblad van de opgave in het daartoe

```

```

        voorziene vak. Op de andere bladen schrijf je je naam
        \emph{niet}. Je examenopgave heeft een uniek nummer dat toelaat het
        te identificeren.
    \end{itemize}
}
\engdut{
    \begin{itemize}
    \item Take your time to \emph{answer all questions in writing}. The
        point weights are listed above every question. Be complete in your
        answer, but stick to the point. Take into account the available time.
    \end{itemize}
}
{
    \begin{itemize}
    \item Neem je tijd om \emph{alle vragen schriftelijk te}
        beantwoorden}. Het puntengewicht van een vraag is bovenaan de vraag
        op de opgavebladen vermeld. Wees volledig in je antwoord, maar ter
        zake. Houd rekening met de beschikbare tijd.
    \end{itemize}
}
\engdut{
    \begin{itemize}
    \item Hand in \emph{all} papers to the staff member on duty, at the
        end of the examination.
    \end{itemize}
    Success!
}
{
    \begin{itemize}
    \item Op het einde van het examen geef je \emph{alle} bladen weer af
        aan de aanwezige docent.
    \end{itemize}
    Succes!
}
\clearpage
}

\studentnr{29}
\begin{document}
\maketitle
\question{[VLATOP-BISTRO]}
\questionweight{3}

\engdut{
    Write down the first five laureates of the VALTOP-bistro competition.
}
{
    Geef de eerste vijf laureaten van de VLATOP-bistro
    competitie.
}

\question{[BECHAMEL]}
\questionweight{7}

```

```

\engdut{
  Which of the ingredients below does not belong in a b\'echamel
  sauce:
}
{
  Welk van de onderstaande ingredi\'enten hoort niet thuis in
  een b\'echamel saus:
}
\engdutmc{Milk}{Melk}
\engdutmc{Butter}{Boter}
\engdutmc{Flower}{Bloem}
\engdutmc{Eggs}{Eieren}
\engdutmc{Sugar}{Suiker}

\insertsolutionspagepartial{20}

\insertsolutionspage{}
\clearpage

\question{[BISTROCULTURE-1]}
\questionweight{10}

\engdut{
  \begin{enumerate}[label=\alph*]
    \item Discuss the evolution of the Northern European bistro culture during
      the latest fifty years.
    \item Relate this to the rise of organized reviews
      like the ones of Michelin and Gault-Millau.
  \end{enumerate}
}
{
  \begin{enumerate}[label=\alph*]
    \item Bespreek de evolutie van de Noord-Europese bistrocultuur
      gedurende de laatste vijftig jaar.
    \item Breng dit in relatie tot de
      opkomst van de georganiseerde recensies zoals die van Michelin en
      Gault-Millau.
  \end{enumerate}
}

\insertsolutionspagepartial{22.5}
\foreach \i in {1,2,3} {
  \insertsolutionspage{}
}
\foreach \i in {1,2} {
  \insertsolutionspage{Scrap/Klad}
}
\end{document}
</ex-example2>

```

6 Implementation of the classes

6.1 Common options

Colors appear in any document, so let's define them in common in a separate package

```
1 \*clo>
2 \newif\if@neutralcolors
3 \@neutralcolorsfalse
4 \DeclareOption{neutralcolors}{\@neutralcolorstrue}
5
6 \newcommand*\colormodel{rgb}
7 \newif\if@cmymk
8 \@cmymkfalse
9 \DeclareOption{cmymk}{\renewcommand*\colormodel{cmymk}\@cmymktrue}
10 \DeclareOption{rgb}{\renewcommand*\colormodel{rgb}\@cmymkfalse}
11
12 \newcommand*\facinenglish[1]{\renewcommand\@faculty{#1}}
13 \newcommand*\facindutch[1]{
14   \AtBeginDocument{
15     \makeatother
16     \ifpackageloaded{babel}{
17       \addto\captionsdutch{\renewcommand*\@faculty{#1}}
18     }{}
19     \makeatletter
20   }
21 }
22 \newcommand*\fselector{ua}
23 \newcommand*\lselector{en}
24 \newlength\logounitheight
25 \setlength\logounitheight{0.8cm}
26
27 \newcommand*\@faculty{~}
28 \DeclareOption{be}{
29   \renewcommand*\fselector{be}
30   \setlength\logounitheight{1cm}
31   \facinenglish{Faculty of Business and Economics}
32   \facindutch{Faculteit Bedrijfswetenschappen en Economie}
33 }
34 \DeclareOption{fbd}{
35   \renewcommand*\fselector{fbd}
36   \setlength\logounitheight{1cm}
37   \facinenglish{Faculty of Pharmaceutical, Biomedical and Veterinary Sciences}
38   \facindutch{Faculteit Farmaceutische, Biomedische en Diergeneeskundige
39     Wetenschappen}
40 }
41 \DeclareOption{ggw}{
42   \renewcommand*\fselector{ggw}
43   \setlength\logounitheight{1cm}
44   \facinenglish{
45     Faculty of Medicine and Health Sciences}
46   \facindutch{Faculteit Geneeskunde en Gezondheidswetenschappen}
```

```

47 }
48 \DeclareOption{lw}{
49   \renewcommand*\fselector{lw}
50   \setlength\logounitheight{1cm}
51   \facinenglish{Faculty of Arts}
52   \facindutch{Faculteit Letteren en Wijsbegeerte}
53 }
54 \DeclareOption{ow}{
55   \renewcommand*\fselector{ow}
56   \setlength\logounitheight{1cm}
57   \facinenglish{Faculty of Design Sciences}
58   \facindutch{Faculteit Ontwerpwetenschappen}
59 }
60 \DeclareOption{re}{
61   \renewcommand*\fselector{re}
62   \setlength\logounitheight{1cm}
63   \facinenglish{Faculty of Law}
64   \facindutch{Faculteit Rechten}
65 }
66 \DeclareOption{sw}{
67   \renewcommand*\fselector{sw}
68   \setlength\logounitheight{1cm}
69   \facinenglish{Faculty of Social Sciences}
70   \facindutch{Faculteit Sociale Wetenschappen}
71 }
72 \DeclareOption{ti}{
73   \renewcommand*\fselector{ti}
74   \setlength\logounitheight{1cm}
75   \facinenglish{Faculty of Applied Engineering}
76   \facindutch{Faculteit Toegepaste Ingenieurswetenschappen}
77 }
78 \DeclareOption{we}{
79   \renewcommand*\fselector{we}
80   \setlength\logounitheight{1cm}
81   \facinenglish{Faculty of Science}
82   \facindutch{Faculteit Wetenschappen}
83 }
84 \DeclareOption{iob}{
85   \renewcommand*\fselector{iob}
86   \setlength\logounitheight{1cm}
87   \facinenglish{Institute of Development Policy}
88   \facindutch{Instituut voor Ontwikkelingsbeleid- en beheer}
89 }
90 \newcommand*\@facultyacronym{\expandafter\uppercase\expandafter{\fselector}}
91
92 \AtBeginDocument{
93   \makeatother
94   \@ifpackageloaded{babel}{
95     \addto\captionsdutch{
96       \renewcommand*\lselector{nl}
97     }{}
98   }
99   \makeatletter
100

```



```

101 \newcommand*\logopos{Logos/logo-uantwerpen-\fselector-\lselector-\colormodel-
pos}
102 \newcommand*\logoposua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
pos}
103 \newcommand*\logoneg{Logos/logo-uantwerpen-\fselector-\lselector-\colormodel-
neg}
104 \newcommand*\logonegua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
neg}
105 \newcommand*\logomonowhite{Logos/logo-uantwerpen-\fselector-\lselector-
\colormodel-mono-white}
106 \newcommand*\logomonowhiteua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
mono-white}
107 \newcommand*\iconfile{Logos/icon-uantwerpen-\fselector-\colormodel}
108 \newcommand*\iconfileua{Logos/icon-uantwerpen-ua-\colormodel}
109 }
110 </clo>

```

6.2 Color scheme

```

111 <*cls>
112 \if@cmymk
113 %% UAntwerpen
114 \definecolor{uauamain}{cmyk}{0.00,0.96,0.82,0.01}
115 \definecolor{uauaside}{cmyk}{1.00,0.71,0.00,0.51}
116 %% Faculteit Bedrijfswetenschappen en Economie
117 \definecolor{uabemain}{cmyk}{0.58,0.00,1.00,0.04}
118 \definecolor{uabeside}{cmyk}{0.29,0.04,0.41,0.00}
119 %% Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
120 \definecolor{uafbdmain}{cmyk}{0.65,0.03,0.00,0.00}
121 \definecolor{uafbdside}{cmyk}{0.33,0.03,0.00,0.00}
122 %% Faculteit Geneeskunde en Gezondheidswetenschappen
123 \definecolor{uaggwmain}{cmyk}{0.61,0.55,0.00,0.00}
124 \definecolor{uaggwside}{cmyk}{0.21,0.27,0.03,0.00}
125 %% Faculteit Letteren en Wijsbegeerte
126 \definecolor{ualwmain}{cmyk}{0.00,0.27,0.85,0.00}
127 \definecolor{ualwside}{cmyk}{0.00,0.16,0.51,0.00}
128 %% Faculteit Ontwerpwetenschappen
129 \definecolor{uaowmain}{cmyk}{0.53,0.25,0.26,0.05}
130 \definecolor{uaowside}{cmyk}{0.25,0.08,0.16,0.00}
131 %% Faculteit Rechten
132 \definecolor{uaremain}{cmyk}{0.10,1.00,0.90,0.05}
133 \definecolor{uareside}{cmyk}{0.04,0.45,0.36,0.00}
134 %% Faculteit Sociale Wetenschappen
135 \definecolor{uaswmain}{cmyk}{0.08,0.00,1.00,0.26}
136 \definecolor{uaswside}{cmyk}{0.20,0.11,0.50,0.00}
137 %% Faculteit Toegepaste Ingenieurswetenschappen
138 \definecolor{uatimain}{cmyk}{0.31,1.00,0.00,0.01}
139 \definecolor{uatiside}{cmyk}{0.11,0.30,0.02,0.00}
140 %% Faculteit Wetenschappen
141 \definecolor{uawemain}{cmyk}{1.00,0.20,0.00,0.25}
142 \definecolor{uaweside}{cmyk}{0.40,0.08,0.00,0.10}
143 %% IOB
144 \definecolor{uaiobmain}{cmyk}{0.05,0.75,1.00,0.00}

```

```

145 \definecolor{uaiobside}{cmyk}{0.40,0.08,0.00,0.10}
146 \else
147 %% UAntwerpen
148 \definecolor{uauamain}{RGB}{234,44,56}
149 \definecolor{uauaside}{RGB}{0,46,101}
150 %% Faculteit Bedrijfswetenschappen en Economie
151 \definecolor{uabemain}{RGB}{101,168,18}
152 \definecolor{uabeside}{RGB}{185,213,169}
153 %% Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
154 \definecolor{uafbdmain}{RGB}{68,184,243}
155 \definecolor{uafbdside}{RGB}{181,221,247}
156 %% Faculteit Geneeskunde en Gezondheidswetenschappen
157 \definecolor{uaggwmain}{RGB}{117,117,203}
158 \definecolor{uaggwside}{RGB}{198,182,210}
159 %% Faculteit Letteren en Wijsbegeerte
160 \definecolor{ualwmain}{RGB}{241,181,61}
161 \definecolor{ualwside}{RGB}{255,218,145}
162 %% Faculteit Ontwerpwetenschappen
163 \definecolor{uaowmain}{RGB}{130,161,173}
164 \definecolor{uaowside}{RGB}{200,217,216}
165 %% Faculteit Rechten
166 \definecolor{uaremain}{RGB}{210,8,36}
167 \definecolor{uareside}{RGB}{237,157,144}
168 %% Faculteit Sociale Wetenschappen
169 \definecolor{uaswmain}{RGB}{173,165,0}
170 \definecolor{uaswside}{RGB}{215,211,148}
171 %% Faculteit Toegepaste Ingenieurswetenschappen
172 \definecolor{uatimain}{RGB}{177,0,151}
173 \definecolor{uatiside}{RGB}{221,184,210}
174 %% Faculteit Wetenschappen
175 \definecolor{uawemain}{RGB}{0,108,169}
176 \definecolor{uaweside}{RGB}{151,192,223}
177 %% IOB
178 \definecolor{uaiobmain}{RGB}{230,98,8}
179 \definecolor{uaiobside}{RGB}{151,192,223}
180 \fi
181 %%
182 \if@neutralcolors
183 \colorlet{maincolor}{uauaside}
184 \colorlet{sidecolor}{uauamain}
185 \colorlet{basecolor}{uauaside}
186 \else
187 \colorlet{maincolor}{ua\fselector main}
188 \colorlet{sidecolor}{ua\fselector side}
189 \colorlet{basecolor}{uauaside}
190 \fi
191 \end{document}

```

6.3 Class inheritance

For convenience, we'll derive from the standard L^AT_EX book, letter and article class.

Before loading the class, we provide the extra options.

```

192 <*ct>
193 \newif\if@modern
194 \@modernfalse
195 \DeclareOption{modern}{\@modernttrue}
196 </ct>
197 <*ct | rp>
198 \newif\if@copyright
199 \DeclareOption{copyright}{\@copyrighttrue}
200 </ct | rp>
201 %
202 <*ct | bmt | pt | rp | le>
203 \newif\if@filled
204 \DeclareOption{filled}{\@filledtrue}
205 </ct | bmt | pt | rp | le>
206 %
207 <*ex>
208 \newif\if@examiner
209 \DeclareOption{examiner}{\@examinertrue}
210 </ex>
211 <*ct | pt>
212 \newif\if@cameraready
213 \DeclareOption{cameraready}{\@camerareadytrue}
214 </ct | pt>

```

We execute some standard options: We load the book class for course texts and master theses.

```

215 <*ct | bmt | pt | rp>
216 \input{uantwerpencommonoptions.clo}
217 \ExecuteOptions{a4paper,11pt,final,oneside,openright}
218 \ProcessOptions\relax
219 \LoadClassWithOptions{book}
220 </ct | bmt | pt | rp>
221 % We load the |letter| class for letters
222 <*le>
223 \input{uantwerpencommonoptions.clo}
224 \ExecuteOptions{a4paper,10pt,final,oneside,openright}
225 \ProcessOptions
226 \LoadClassWithOptions{letter}
227 \newcommand*\tat{\makeatletter @\makeatother}
228 </le>
229 % We load the |article| class for exams
230 <*ex>
231 \input{uantwerpencommonoptions.clo}
232 \ExecuteOptions{a4paper,twoside,10pt}
233 \ProcessOptions
234 \LoadClassWithOptions{article}
235 </ex>

```

6.4 Modern typesetting

Let's force some modern typesetting without paragraph indentation and with a decent paragraph spacing.

```
236 <*ct | bmt | pt | rp | le | ex>
237 \setlength{\parindent}{0pt}
238 \addtolength{\parskip}{0.75\baselineskip}
239 \setcounter{secnumdepth}{3}
240 </ct | bmt | pt | rp | le | ex>
```

6.5 Auxiliary packages

Reinventing the wheel is a waste of time, let's preload some appropriate auxiliary packages that have proven their value.

6.5.1 Geometry

Let's reduce the margins to 1 inch each for the documents that are unlikely to be glue bound:

```
241 <*ct | bmt | rp | ex>
242 \RequirePackage[top=2.5cm, bottom=2.5cm, left=2.5cm, right=2.5cm]{geometry}
243 </ct | bmt | rp | ex>
244 % Let's follow the instructions by ADS for the (marginal(!) glue provision):
245 <*pt>
246 \RequirePackage[paperwidth=180mm,paperheight=260mm,
247               top=2.5cm,bottom=2.5cm,left=2.6cm,right=1.8cm,twoside]
248               {geometry}
249 </pt>
250 <*le>
251 \RequirePackage[top=1in, bottom=1in, left=1.34in, right=1in]{geometry}
252 \RequirePackage[normalem]{ulem}
253 </le>
```

6.5.2 Preparing for L^AT_EX3

Let's make things a bit easier for me.

```
254 <*ct | bmt | pt | rp | le | ex>
255 \RequirePackage{expl3}
256 %\RequirePackage[check-declarations]{expl3} % I use this during debug phase
257 \RequirePackage{xparse}
258 </ct | bmt | pt | rp | le | ex>
```

6.5.3 Font packages

Note that the use of cmbright is no longer imposed (as of v1.3). Using a good font is now up to the user. The packages 'newpxtext/newpxmath' and 'cmbright'

are highly recommended. For writing letters, 'Calibri' is the official font of the University of Antwerp.

```
259 <*ct | bmt | pt | rp | le>
260 % no more font code
261 </ct | bmt | pt | rp | le>
```

6.5.4 Boilerplate packages

Some boilerplate packages and an empty macro to test against (using\ifx)

```
262 <*ct | bmt | pt | rp | le | ex>
263 \RequirePackage{iftex}
264 \RequirePackage{xstring}
265 \RequirePackage{etoolbox}
266 \RequirePackage{ifthen}
267 \IfFileExists{shellesc.sty}{\RequirePackage{shellesc}}{}
268 \newcommand{\@emptymacro}{}
269 </ct | bmt | pt | rp | le | ex>
```

6.5.5 Graphics packages

Graphics packages that are required for the title page, but may come in handy for regular use as well.

Some packages for coursetext and bamathesis:

```
270 <*ct | bmt | pt | rp | le | ex>
271 \RequirePackage{graphicx}
272 \RequirePackage[export]{adjustbox}
273 \RequirePackage{color}
274 \RequirePackage{tikz}
275 \usetikzlibrary{positioning}
276 \RequirePackage{eso-pic}
277 </ct | bmt | pt | rp | le | ex>
278 <*ct | rp>
279 \if@copyright
280 \RequirePackage[contents={},color=lightgray,scale=3]{background}
281 \fi
282 </ct | rp>
283 <*pt>
284 \usepackage{ean13isbn}
285 </pt>
```

6.5.6 UAntwerpen color and logo scheme

```
286 <*ct | bmt | pt | rp | le | ex>
287 \RequirePackage{uantwerpencolorlogoscheme}
288 </ct | bmt | pt | rp | le | ex>
```

6.5.7 Header/Footer

The de-facto standard for headers and footers:

```
289 <*ct | bmt | pt | rp | le | ex>
290 \RequirePackage{fancyhdr}
291 </ct | bmt | pt | rp | le | ex>
```

6.6 Colors

```
292 <*ct | bmt | pt | rp | le | ex>
293 \definecolor{uacorpbord}{cmyk}{0.00,1.00,0.60,0.37}
294 \definecolor{uacorpblue}{cmyk}{1.00,0.25,0.00,0.50}
295 \definecolor{uacorplightblue}{cmyk}{1.00,0.00,0.08,0.13}
296 \definecolor{uacorporange}{cmyk}{0.00,0.32,1.00,0.09}
297 \definecolor{uaftifresh}{cmyk}{0.34,1.00,0.00,0.00}
298 \definecolor{uaftisober}{cmyk}{0.10,1.00,0.00,0.49}
299 \definecolor{lightgray}{cmyk}{0.00,0.00,0.00,0.05}
300 \definecolor{darkgray}{cmyk}{0.00,0.00,0.00,0.80}
301 \definecolor{watermark}{cmyk}{0.00,0.00,0.00,0.05}
302 </ct | bmt | pt | rp | le | ex>
```

6.7 Camera-ready version

For the course texts, this means printing no artwork (as universitas prints your front page on a pre-printed color page) This is taken care of by the titlepage and finalpage environments, so no extra code is needed here.

For PhD texts, this means providing bleed space. We implemented this using the very fine `crop` package.

```
303 <*pt>
304 \if@cameraready
305 \RequirePackage[cam,center,width=21truecm,height=29.7truecm]{crop}
306 \fi
307 </pt>
```

6.8 Babel provisions

Let's start by defining our dictionary:

```
308 <*ct | bmt | pt | rp | le | ex>
309 \ExplSyntaxOn
310 \prop_new:N \g_@@_data_prop
311 </ct | bmt | pt | rp | le | ex>%
```

The dictionary can be accessed using the following document command:

```
312 <*ct | bmt | pt | rp | le | ex>
313 \NewDocumentCommand{\uantwerpendocsprop}{m}{
314   \prop_item:Nn \g_@@_data_prop{#1}
315 }
```

```

316 \NewDocumentCommand{\uantwerpendocsPROP}{m}{
317   \str_uppercase:f { \prop_item:Nn \g_@@_data_prop{#1} }
318 }
319 \NewDocumentCommand{\uantwerpendocspropread}{m}{
320   \@@_datareader:n { #1 }
321 }
322 </ct|bmt|pt|rp|le|ex)%

```

We will fill the dictionary from the generic data file (for elements that should not be translated, currently empty) and the language specific data files (for elements that can be translated).

To this end, we use the following parsing infrastructure:

```

323 <*ct|bmt|pt|rp|le|ex>
324 \cs_generate_variant:Nn \prop_gput:Nnn{ Nxx }
325 \cs_new_nopar:Npn \@@_dataparser:w #1 = #2!! {
326   \tl_set:Nn \l_tmpa_tl {#1}
327   \tl_set:Nn \l_tmpb_tl {#2}
328   \tl_trim_spaces:N \l_tmpa_tl
329   \tl_trim_spaces:N \l_tmpb_tl
330   \prop_gput:Nxx \g_@@_data_prop { \l_tmpa_tl } { \l_tmpb_tl }
331 }
332 </ct|bmt|pt|rp|le|ex>

```

invoked by the following data file reader:

```

333 <*ct|bmt|pt|rp|le|ex>
334 \ior_new:N \l_@@_data_ior
335 \cs_new_nopar:Nn \@@_datareader:n {
336   \ior_open:Nn \l_@@_data_ior { uantwerpendocs-#1.data }
337   \ior_str_map_inline:Nn \l_@@_data_ior {
338     \regex_match:nnTF {=} {##1} {
339       \@@_dataparser:w ##1!!
340     }
341   }
342 }
343 \ior_close:N \l_@@_data_ior
344 }
345 </ct|bmt|pt|rp|le|ex>

```

By default, we load the generic (not yet!) and the english data file:

```

346 <*ct|bmt|pt|rp|le|ex>
347 \clist_map_inline:nn {en} {
348   \@@_datareader:n { #1 }
349 }
350 %\prop_show:N \g_@@_data_prop
351 \ExplSyntaxOff
352 </ct|bmt|pt|rp|le|ex>

353 <*ct|bmt|pt|rp|le|ex>
354 \newcommand*\@logo{\logopos}
355 \AtBeginDocument{
356   \makeatother

```

```

357 \@ifpackageloaded{babel}{
358   \addto\captionsenglish{%
359     \uantwerpendocspropread{en}
360   }
361   \addto\captionsdutch{%
362     \uantwerpendocspropread{nl}
363   }
364 }
365 {}
366 \makeatletter
367 }
368 </ct | bmt | pt | rp | le | ex>

```

The English data can be found below: <*endata> org-be = Faculty of Business and Economics org-fbd = Faculty of Pharmaceutical, Biomedical and Veterinary Sciences org-ggw = Medicine and Health Sciences org-lw = Faculty of Arts org-ow = Faculty of Design Sciences org-re = Faculty of Law org-sw = Faculty of Social Sciences org-ti = Faculty of Applied Engineering org-we = Faculty of Science org-iob = Institute of Development Policy org-ua = University of Antwerp arr = All rights reserved of = of domainname = uantwerp.be datename = Date subjectname = Subject acyearname = Academic year baname = Bachelor of Science spname = Switching Programme vpname = Preparatory Programme maname = Master of Science phdname = PhD thesisname = Thesis mthesisname = Master's thesis bthesisname = Bachelor's thesis lecturername = Lecturer lecturersname = Lecturers supervisorname = Supervisor supervisorsname = Supervisors examname = Exam — Examen seriesname = Series lastname = Last name — Naam firstname = First name — Voornaam docketname = Docket No. — Rolnr. roomname = Room — Lokaal roomsname = Rooms — Lokalen examstartname = Start — Begin examendname = End — Einde examdurationname = Exam duration — Duur van het examen jurynname = Jury jurymembersname = Members jurychairmanname = Chairman bmthesisname = Thesis to obtain the degree of pthesisnamei = Thesis submitted in fulfilment of the requirements for the degree of pthesisnameii = at University of Antwerp weightname = Weight </endata>

The Dutch data can be found below: <*nldata> org-be = Faculteit Bedrijfswetenschappen en Economie org-fbd = Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen org-ggw = Faculteit Geneeskunde en Gezondheidswetenschappen org-lw = Faculteit Letteren en Wijsbegeerte org-ow = Faculteit Ontwerpwetenschappen org-re = Faculteit Rechten org-sw = Faculteit Sociale Wetenschappen org-ti = Faculteit Toegepaste Ingenieurswetenschappen org-we = Faculteit Wetenschappen org=iob = Instituut voor Ontwikkelingsbeleid- en -beheer org-ua = Universiteit Antwerpen arr = Alle rechten voorbehouden of = van domainname = uantwerpen.be datename = Onderwerp subjectname = Datum acyearname = Academiejaar baname = Bachelor of Science spname = Schakelprogramma vpname = Voorbereidingsprogramma maname = Master of Science phdname = Doctoraat thesisname = Afstudeerproef mthesisname = Masterproef bthesisname = Bachelorproef lecturername = Titularis lecturersname = Titularissen supervisorname = Promotor supervisorsname = Promotoren examname = Examen seriesname = Reeks lastname = Naam firstname = Voornaam docketname = Rolnr. roomname = Lokaal roomsname = Lokalen examstartname = Begin examendname = Einde examdurationname = Duur van het examen jurynname

= Jury jurymembersname = Leden jurychairmannname = Voorzitter bmthesisname = Proefschrift tot het behalen van de graad van pthesisnamei = Proefschrift voorgelegd tot het behalen van de graad van pthesisnameii = aan de Universiteit Antwerpen te verdedigen door weightname = Gewicht </nldata>

6.9 Tags

`\facultyacronym` The `facultyacronym` sets the faculty acronym tag `\@facultyacronym` that is used in the header/footer information. The correct acronym also sets the faculty's name correctly.

```
369 <*ct | bmt | pt | rp | le | ex>
370 \newcommand*{\facultyacronym}[1]{
371   \PackageError{uantwerpendocs}
372   {The '\protect\facultyacronym{' macro is no longer available. Use
373     your faculty abbreviation in lowercase as class options instead}
374   {The interface of uantwerpendocs 4.0 has been changed. See
375     the uantwerpendocs manual under section '5.2 The class options explained'}
376 }
377 </ct | bmt | pt | rp | le | ex>
```

`\title` The `title` tag is native to L^AT_EX. It sets the `\@title` tag that will be used on the title page.

`\subtitle` This macro sets the `\@subtitle` tag that later will be used on the title page, in the header/footer and to set the appropriate `hyperref` tag (if it is loaded).

```
378 <*bmt>
379 \ExplSyntaxOn
380 \NewDocumentCommand{\@subtitle}{m}{
381   \tl_new:N \l_@@_degree
382   \tl_set:Nx \l_@@_degree { \tl_head:N \@degree }
383   \tl_if_eq:NnTF \l_@@_degree { B } {\uantwerpendocsprop{bthesisname}} {
384     \tl_if_eq:NnTF \l_@@_degree { M } {\uantwerpendocsprop{mthesisname}}
385     {\uantwerpendocsprop{thesisname}}}
386 }
387 \ExplSyntaxOff
388 </bmt>
389 <*ct | pt | rp>
390 \newcommand*{\@subtitle}{~}
391 \newcommand*{\subtitle}[1]{%
392   \renewcommand*\@subtitle{#1}
393 }
394 </ct | pt | rp>
```

`\shorttitle` This macro sets the `\@shorttitle` tag that later will be used in the `exam` class.

```
395 <*ex>
396 \newcommand*{\@shorttitle}{}
397 \newcommand*{\shorttitle}[1]{%
398   \renewcommand*\@shorttitle{#1}
```

```
399 }
400 </ex>
```

\author The `author` tag is native to L^AT_EX. It sets the `\@author` tag that will be used on the title page.

\courseversion This macro sets the `\@courseversion` tag that later will be used on the title page and in the header/footer.

```
401 <*ct>
402 \newcommand*{\@courseversion}{}
403 \newcommand*{\courseversion}[1]{\renewcommand*{\@courseversion}{#1}}
404 </ct>
```

\versionyear This macro sets the `\@versionyear` tag that later will be used on the title page and in the copyright message.

```
405 <*ct | rp>
406 \newcommand*{\@versionyear}{}
407 \newcommand*{\versionyear}[1]{\renewcommand*{\@versionyear}{#1}}
408 </ct | rp>
```

\publisher This macro sets the `\@publisher` tag that later will be used on the title page.

```
409 <*ct>
410 \newcommand{\@publisher}{Universitas Cursusdienst |
411   Prinsesstraat 16 |
412   2000 Antwerpen |
413   T +32 3 233 23 73 |
414   E info@cursusdienst.be}
415 \newcommand*{\publisher}[1]{\renewcommand*{\@publisher}{#1}}
416 </ct>
```

\publishercode This macro sets the `\@publishercode` tag that later will be used on the title page.

```
417 <*ct>
418 \newcommand*{\@publishercode}{}
419 \newcommand*{\publishercode}[1]{\renewcommand*{\@publishercode}{#1}}
420 </ct>
```

\lecturer This macro adds lecturers (Dutch: titularissen) to the course notes. Use the macro multiple times for multiple lecturers. The order will be preserved. Note that as of v4.0 all lecturers are specified using the same macro!

```
421 <*ct | ex>
422 \ExplSyntaxOn
423 \seq_new:N \g_@@_lecturers
424 \cs_new:Nn \@@_addlecturer:n {
425   \seq_gpush:Nn \g_@@_lecturers { #1 }
426 }
427 \NewDocumentCommand{\lecturer}{m}{
428   \@@_addlecturer:n { #1 }
}
```

```

429 }
430 \NewDocumentCommand{\jointlecturers}{m}{
431   \seq_use:Nn \g_@@_lecturers { #1 }
432 }
433 \NewDocumentCommand{\lecturersname}{l}{
434   \if_int_compare:w \seq_count:N \g_@@_lecturers > 1
435     \uantwerpendocsprop{lecturersname}
436   \else:
437     \uantwerpendocsprop{lecturername}
438   \fi:
439 }
440 \AtBeginDocument{
441   \seq_greverse:N \g_@@_lecturers
442 }
443
444 \ExplSyntaxOff
445 </ct|ex>

```

\extra The **extra** tag allows to specify some extra comment (e.g. the nature of the document) in the bottom bar on the title page).

```

446 <*rp>
447 \newcommand\@extra{}
448 \newcommand\extra[1]{\renewcommand\@extra{#1}}
449 </rp>

```

\affiliation The **affiliation** tag allows to specify the affiliation of the author.

```

450 <*pt|rp>
451 \newcommand\@affiliation{
452   \PackageError{uantwerpendocs}
453   {Please, define the affiliation of the author using the
454     '\protect\affiliation{' command in the preamble of your
455     document.}
456   {See the uantwerpendocs manual}
457 }
458 \newcommand\affiliation[1]{\renewcommand\@affiliation{#1}}
459 </pt|rp>

```

\supervisor This macro allows to specify one or more supervisors with their affiliation. This can be done by invoking the macro as many times as needed. Note that as of v4.0 all supervisors are specified using the same macro!

```

460 <*bmt|pt>
461 \ExplSyntaxOn
462
463 \seq_new:N \g_@@_supervisors
464 \seq_new:N \g_@@_supervisorswithaffiliation
465 \cs_new:Nn \@@_addsupervisor:nn {
466   \seq_gpush:Nn \g_@@_supervisors { #1 }
467   \seq_gpush:Nn \g_@@_supervisorswithaffiliation { #1,-#2 }
468 }
469 \NewDocumentCommand{\supervisor}{mm}{

```

```

470 \@@_addsupervisor:nn { #1 } { #2 }
471 }
472 \NewDocumentCommand{\jointssupervisors}{m}{
473 \seq_use:Nn \g_@@_supervisors { #1 }
474 }
475 \NewDocumentCommand{\jointssupervisorswithaffiliation}{m}{
476 \seq_use:Nn \g_@@_supervisorswithaffiliation { #1 }
477 }
478 \NewDocumentCommand{\supervisorsname}{}{
479 \if_int_compare:w \seq_count:N \g_@@_supervisors > 1
480 \uantwerpendocsprop{supervisorsname}
481 \else:
482 \if_int_compare:w \seq_count:N \g_@@_supervisors = 1
483 \uantwerpendocsprop{supervisorname}
484 \else:
485 \fi:
486 \fi:
487 }
488 \AtBeginDocument{
489 \seq_greverse:N \g_@@_supervisors
490 \seq_greverse:N \g_@@_supervisorswithaffiliation
491 }
492 \ExplSyntaxOff
493 </bmt | pt>

```

`\jurychairman` This macro sets the `\@jurychairman` tag that later will be used on the data page.

```

494 < *pt>
495 \newcommand*{\@jurychairman}{
496 \PackageError{uantwerpendocs}
497 {Please, define a chairman of the jury using the
498 '\protect\jurychairman{' command in the preamble of your
499 document.}
500 {See the uantwerpendocs manual}
501 }
502 \newcommand*{\@jurychairmanaff}{}
503 \newcommand*{\jurychairman}[2]{
504 \renewcommand*{\@jurychairman}{#1}\renewcommand*{\@jurychairmanaff}{#2}}
505 </pt>

```

`\jurymember` This macro allows for the registration of jury members and their affiliation. This can be done by invoking the macro as many times as needed. Note that as of v4.0 all jurymembers are specified using the same macro!

```

506 < *pt>
507 \ExplSyntaxOn
508 \seq_new:N \g_@@_jurymemberswithaffiliation
509 \cs_new:Nn \@@_addjurymember:nn {
510 \seq_gpush:Nn \g_@@_jurymemberswithaffiliation { #1,~#2 }
511 }
512 \NewDocumentCommand{\jurymember}{mm}{
513 \@@_addjurymember:nn { #1 } { #2 }
514 }

```

```

515 \NewDocumentCommand{\jointjurymembers}{m}{
516   \seq_use:Nn \g_@@_jurymemberswithaffiliation { #1 }
517 }
518 \AtBeginDocument{
519   \seq_greverse:N \g_@@_jurymemberswithaffiliation
520 }
521 \ExplSyntaxOff
522 \</pt>

```

`\phddegree` This macro has been discontinued. Use `\degree` instead.

```

523 \< *pt>
524 \newcommand*\phddegree{
525   \PackageError{uantwerpendocs}
526   {The '\protect\phddegree{' macro is no longer available. Use
527     '\protect\degree{' instead}
528   {The interface of uantwerpendocs 4.0 has been changed. Use the
529     '\protect\degree' macro to specify your degree in full text (see
530     the uantwerpendocs manual)'}
531 }
532 \< /pt>
533 %
534 %
535 % \begin{macro}{\degree}
536 %   This macro sets the |\@degree| tag that later will
537 %   be used on the title pages.
538 %
539 %   \begin{macrocode}
540 \< *bmt | pt | ct | ex>
541 \newcommand*\@degree{
542   \PackageError{uantwerpendocs}
543   {Please, specify the official degree description using
544     the '\protect\degree{' macro in the preamble of your document.}
545   {See the uantwerpendocs manual}
546 }
547 \newcommand*\degree[1]{\renewcommand*\@degree{#1}}
548 \< /bmt | pt | ct | ex>

```

`\programme` This macro is no longer in use.

```

549 \< *ct | pt | ex>
550 \newcommand*\programme[3]{
551   \PackageError{uantwerpendocs}
552   {The '\protect\programme{}{}{' macro is no longer available. Use
553     '\protect\degree{' instead}
554   {The interface of uantwerpendocs 4.0 has been changed. Use the
555     '\protect\degree' macro to specify your degree in full text (see
556     the uantwerpendocs manual)'}
557 }
558 \< /ct | pt | ex>

```

`\course` Four the `coursetext` class, this macro sets one or more courses. and `\@course` tags that later will be used on the title page. Note that as of v4.0 all courses are

specified using the same macro!

```

559 <*ct>
560 \newcommand*\coursei[2]{
561   \PackageError{uantwerpendocs}
562   {The '\protect\coursei{ }' macro is no longer available. Use
563     '\protect\course{ }' instead (multiple times if you need to)}
564   {The interface of uantwerpendocs 4.0 has been changed. Use the
565     '\protect\course macro instead of the \protect\coursei,
566     \protect\courseii, \protect\courseiii and \protect\courseiv macros
567     that existed earlier (see
568     the uantwerpendocs manual)'}
569 }
570 \ExplSyntaxOn
571 \seq_new:N \g_@@_courseswithcodes
572 \cs_new:Nn \@@_addcourse:nn {
573   \seq_gpush:Nn \g_@@_courseswithcodes{ \texttt{#1}~#2 }
574 }
575 \NewDocumentCommand{\course}{mm}{
576   \@@_addcourse:nn { #1 } { #2 }
577 }
578 \NewDocumentCommand{\jointcourseswithcodes}{m}{
579   \seq_use:Nn \g_@@_courseswithcodes { #1 }
580 }
581 \AtBeginDocument{
582   \seq_greverse:N \g_@@_courseswithcodes
583 }
584 \ExplSyntaxOff
585 </ct>

```

For the `exam` class (assuming that an exam only holds for a single course), the situation is simple and we assume only a single coursecode and course name.

```

586 <*ex>
587 \newcommand*\{@coursecode}{ }
588 \newcommand*\{@course}{ }
589 \newcommand*\course[2]{
590   \renewcommand*\{@coursecode}{#1}
591   \renewcommand*\{@course}{#2}
592 }
593 </ex>

```

`\diploma` This macro sets the official diploma description into the `\@diploma` tag that later will be used on the title page.

```

594 <*bmt | pt>
595 \newcommand*\diploma[1]{
596   \PackageError{uantwerpendocs}
597   {The '\protect\diploma{ }' macro is no longer available. Use
598     '\protect\degree{ }' instead}
599   {The interface of uantwerpendocs 4.0 has been changed. Use the
600     '\protect\degree' macro to specify your degree in full text (see
601     the uantwerpendocs manual)'}
602 }

```

603 \langle /bmt | pt \rangle

\backslash defensedate This macro sets the \backslash @defensedate tags that later will be used on the title page.

604 \langle *bmt | pt \rangle
605 \backslash newcommand* \backslash @defensedate{ERROR}
606 \backslash newcommand* \backslash @defensedate}[1]{ \backslash renewcommand* \backslash @defensedate{#1}}
607 \langle /bmt | pt \rangle

\backslash defenselocation This macro sets the \backslash @defenselocation tags that later will be used on the title page.

608 \langle *bmt | pt \rangle
609 \backslash newcommand* \backslash @defenselocation{Antwerpen}
610 \backslash newcommand* \backslash @defenselocation}[1]{ \backslash renewcommand* \backslash @defenselocation{#1}}
611 \langle /bmt | pt \rangle

\backslash titeplageimage This macro sets the \backslash @titlepageimage tags that later will be used on the title page, to include the graphics.

612 \langle *ct | pt | rp \rangle
613 \backslash newcommand* \backslash @titlepageimage{}
614 \backslash newcommand* \backslash @titlepageimage[1]{ \backslash renewcommand* \backslash @titlepageimage{#1}}
615 \langle /ct | pt | rp \rangle

\backslash isbn This macro sets the \backslash @isbn tags that later will be used on the data page. If you don't have an ISBN number, just don't specify one (i.e. don't use this macro).

616 \langle *pt \rangle
617 \backslash newcommand* \backslash @isbn{-}
618 \backslash newcommand* \backslash @isbn}[1]{ \backslash renewcommand* \backslash @isbn{#1}}
619 \langle /pt \rangle

\backslash depot This macro sets the \backslash @depot tags that later will be used on the data page. If you don't have a depot number, just don't specify one (i.e. don't use this macro).

620 \langle *pt \rangle
621 \backslash newcommand* \backslash @depot{-}
622 \backslash newcommand* \backslash @depot}[1]{ \backslash renewcommand* \backslash @depot{#1}}
623 \langle /pt \rangle

\backslash academicyear This macro sets the \backslash @academicyear tag that later will be used on the title page.

624 \langle *ct | bmt | ex \rangle
625 \backslash newcommand* \backslash @academicyear{XXX-YYYY}
626 \backslash newcommand* \backslash @academicyear}[1]{ \backslash renewcommand* \backslash @academicyear{#1}}
627 \langle /ct | bmt | ex \rangle

\backslash copyrightnotices This macro sets the \backslash @copyrightnotices tag that later will be used on the back of the title page.

628 \langle *ct | rp \rangle

```

629 \newcommand{\@copyrightnotices}{}
630 \newcommand{\copyrightnotices}[1]{\renewcommand{\@copyrightnotices}{#1}}
631 \</ct | rp>

```

\sender This macro sets the \@sender and \@senderrole tags that will be used in the letter's heading text.

```

632 \*le
633 \newcommand*{\@sender}{< Specify sender using
634   \textbackslash{sender}\{name\}\{role\} >}
635 \newcommand*{\@senderrole}{-}
636 \newcommand*{\sender}[2]{\renewcommand*{\@sender}{#1}\renewcommand*{\@senderrole}{#2}}
637 \le

```

\logo This macro sets the \@logo tag that will be used to load a graphics file with that name.

```

638 \*le | ex
639 \newcommand*{\logo}[1]{\renewcommand*{\@logo}{#1}}
640 \le | ex

```

\unit This macro sets the \@unit tag that will be used in the letter's heading text.

```

641 \*le
642 \newcommand*{\@unit}{}
643 \newcommand*{\unit}[1]{\renewcommand*{\@unit}{#1}}
644 \le

```

\email This macro sets the \@emailuser and \@emaildomain tags that will be used in the letter's heading text. This split construction was used to overcome problems with the @ sign.

```

645 \*le
646 \newcommand*{\@emailuser}{}
647 \newcommand*{\@emaildomain}{}
648 \newcommand*{\email}[2]{\renewcommand*{\@emailuser}{#1}\renewcommand*{\@emaildomain}{#2}}
649 \le

```

\phone This macro sets the \@phone tag that will be used in the letter's heading text.

```

650 \*le
651 \newcommand*{\@phone}{}
652 \newcommand*{\phone}[1]{\renewcommand*{\@phone}{#1}}
653 \le

```

\fax This macro sets the \@fax tag that will be used in the letter's heading text.

```

654 \*le
655 \newcommand*{\@fax}{}
656 \newcommand*{\fax}[1]{\renewcommand*{\@fax}{#1}}
657 \le

```


`\mobile` This macro sets the `\@mobile` tag that will be used in the letter's heading text.

```

658 (*le)
659 \newcommand*\@mobile{}
660 \newcommand*\mobile[1]{\renewcommand*\@mobile{#1}}
661 \le

```

`\returnaddress` This macro sets the `\@returnaddress` tag that will be used in the letter's heading text (in the area of the envelope's window).

```

662 (*le)
663 \newcommand*\@returnaddress{<specify return-address using \textbackslash{single-
line-return-address}>}
664 \renewcommand*\returnaddress[1]{\renewcommand*\@returnaddress{#1}}
665 \le

```

`\to` This macro sets the `\@to` tag that will be used in the letter's heading text (in the area of the envelope's window).

```

666 (*le)
667 \newcommand*\@to{<Specify addressee using \textbackslash{}to{name}>}
668 \renewcommand*\to[1]{\renewcommand*\@to{#1}}
669 \le

```

`\toorganization` This macro sets the `\@toorganization` tag that will be used in the letter's heading text (in the area of the envelope's window).

```

670 (*le)
671 \newcommand*\@toorganization{<Specify organization using
672 \textbackslash{}toorganization{>}
673 \newcommand*\toorganization[1]{\renewcommand*\@toorganization{#1}}
674 \le

```

`\toaddress` This macro sets the `\@toaddress` tag that will be used in the letter's heading text (in the area of the envelope's window).

```

675 (*le)
676 \newcommand*\@toaddress{<Specify (multiline) destination
677 address\\using \textbackslash{}toaddress{>}
678 \newcommand*\toaddress[1]{\renewcommand*\@toaddress{#1}}
679 \le

```

`\subject` This macro sets the `\@subject` tag that will be used in the letter's heading text.

```

680 (*le)
681 \newcommand*\@subject{-}
682 \newcommand*\subject[1]{\renewcommand*\@subject{#1}}
683 \le

```

`\opening` This macro is much a do about nothing, but I prefer to do it this way for historic reasons.

```

684 <*\le>
685 \renewcommand*{\opening}[1]{#1}
686 </\le>

```

\closing This macro sets the `\@closing` tag that will be used to finish the letter.

```

687 <*\le>
688 \newcommand*{\@closing}{<specify a closing formula using
689   \textbackslash{closing}\{>}
690 \renewcommand*{\closing}[1]{\renewcommand*{\@closing}{#1}}
691 </\le>

```

\signature This macro sets the `\@signature` tag that will be used to finish the letter. By default this corresponds to a decent amount of vertical white space

```

692 <*\le>
693 \newcommand*{\@signature}{\vspace*{8ex}}
694 \renewcommand*{\signature}[1]{\renewcommand*{\@signature}{#1}}
695 </\le>

```

\carboncopy This macro will set the `\@carboncopy` tag that will be used in the trailer of the letter.

```

696 <*\le>
697 \newcommand*{\@carboncopy}{ }
698 \newcommand*{\carboncopy}[1]{\renewcommand*{\@carboncopy}{#1}}
699 </\le>

```

\enclosed This macro will set the `\@enclosed` tag that will be used in the trailer of the letter.

```

700 <*\le>
701 \newcommand*{\@enclosed}{ }
702 \newcommand*{\enclosed}[1]{\renewcommand*{\@enclosed}{#1}}
703 </\le>

```

\address This macro will set the `\@address` tag that will be used in the letter's heading text (in the area of the envelope's window).

```

704 <*\pt | rp | le>
705 \newcommand*{\@address}{
706   \PackageError{uantwerpendocs}
707   {Please, set your multi-line address and contact details using the
708     '\protect\address{' command in the preamble of your document}
709   {See the uantwerpendocs manual}
710 }
711 </\pt | rp | le>
712 %
713 <\pt | rp>\newcommand*{\address}[1]{\renewcommand*{\@address}{#1}}
714 <\le>\renewcommand*{\address}[1]{\renewcommand*{\@address}{#1}}
715 %   \end{\macrocode}
716 % \end{macro}
717 %

```

```

718 % \begin{macro}{\exampart}
719 %   This macro will set the |\@examgropunumber| tag that will be used on
720 %   the exam title page.
721 %   \begin{macrocode}
722 <*ex>
723 \newcommand*{\@exampart}{}
724 \newcommand*{\exampart}[1]{\renewcommand*{\@exampart}{#1}}
725 </ex>

```

`\examgroupnumber` This macro will set the `\@examgroupnumber` tag that will be used on the exam title page.

```

726 <*ex>
727 \newcommand*{\@examgroupnumber}{}
728 \newcommand*{\examgroupnumber}[1]{\renewcommand*{\@examgroupnumber}{#1}}
729 </ex>

```

`\examdate` This macro will set the `\@examdate` tag that will be used on the exam title page.

```

730 <*ex>
731 \newcommand*{\@examdate}{TBD}
732 \newcommand*{\examdate}[1]{\renewcommand*{\@examdate}{#1}}
733 </ex>

```

`\examlength` This macro will set the `\@examlength` tag that will be used on the exam title page.

```

734 <*ex>
735 \newcommand*{\@examlength}{TBD}
736 \newcommand*{\examlength}[1]{\renewcommand*{\@examlength}{#1}}
737 </ex>

```

`\tstart` This macro will set the `\@tstart` tag that will be used on the exam title page.

```

738 <*ex>
739 \newcommand*{\@tstart}{TBD}
740 \newcommand*{\tstart}[1]{\renewcommand*{\@tstart}{#1}}
741 </ex>

```

`\tend` This macro will set the `\@tend` tag that will be used on the exam title page.

```

742 <*ex>
743 \newcommand*{\@tend}{TBD}
744 \newcommand*{\tend}[1]{\renewcommand*{\@tend}{#1}}
745 </ex>

```

`\room` This macro will set the `\@rooms` tag that will be used on the exam title page.

```

746 <*ex>
747 \ExplSyntaxOn
748 \seq_new:N \g_@@_rooms
749 \cs_new:Nn \@@_addroom:n {
750   \seq_gpush:Nn \g_@@_rooms { #1 }

```

```

751 }
752 \NewDocumentCommand{\room}{m}{
753   \@@_addroom:n { #1 }
754 }
755 \NewDocumentCommand{\jointrooms}{m}{
756   \seq_use:Nn \g_@@_rooms { #1 }
757 }
758 \NewDocumentCommand{\roomsname}{-}{
759   \if_int_compare:w \seq_count:N \g_@@_rooms > 1
760     \uantwerpendocsprop{roomsname}
761   \else:
762     \uantwerpendocsprop{roomname}
763   \fi:
764 }
765 \AtBeginDocument{
766   \seq_greverse:N \g_@@_rooms
767 }
768
769 \ExplSyntaxOff
770 \</ex>

```

\extrainfo This macro will set the `\@extrainfo` tag that will be used on the back of the exam title page. When as (optional) first argument 'firstpage' is given, the extra info will start on the first page below the title block. In that case, we assume that conservation of space is your concern, so the extra info will also not be terminated with a 'clearpage'. If no optional first argument is given (or the default 'separatepage' is given), the extra info will start on a new page and will be terminated by a clearpage.

```

771 \<ex>
772 \newcommand{\@extrainfo}{}
773 \newcommand\extrainfo[2][separatepage]{
774   \ifthenelse{\equal{#1}{separatepage}}{
775     % then
776     \renewcommand{\@extrainfo}{\clearpage #2 \clearpage}
777   }
778   {
779     % else
780     \ifthenelse{\equal{#1}{firstpage}}{
781       {
782         \renewcommand{\@extrainfo}{#2}
783       }
784       {
785         \PackageError{uantwerpendocs}
786         {The first (optional) argument of '\protect\extrainfo' can
787          only be 'separatepage' or 'firstpage'}
788         {See the uantwerpendocs manual}'
789       }
790     }
791   }
792 \</ex>

```

\studentnr This macro will set the `\@studentnr` tag that will be used in the header of the

pages.

```
793 <*ex>
794 \newcommand*{\@studentnr}{0}
795 \newcommand*{\studentnr}[1]{\renewcommand*{\@studentnr}{#1}}
796 </ex>
```

6.10 Header and Footer

The `fancyhdr` package is used to make a decent header and footer. The header and footer of the `coursetext` class are defined to be:

```
797 <*ct>
798 \if@twoside
799 \lhead[\thepage]{\slshape\rightmark}
800 \chead[]{}
801 \rhead[\slshape\leftmark]{\thepage}
802 \lfoot[\uantwerpendocsprop{org-ua} -- \@facultyacronym]{\@courseversion}
803 \cfoot[]{}
804 \rfoot[]{\@title}\ifdefined\@subtitle\{ \{ --- \@subtitle\}
805 \else
806 \lhead[]{\leftmark}
807 \chead[]{}
808 \rhead[]{\thepage}
809 \lfoot[]{\@courseversion}
810 \cfoot[]{\UAntwerpen--\@facultyacronym}
811 \rfoot[]{\@title}\}
812 \fi
813 </ct>
```

The header and footer of the `bamathesis` class are defined to be:

```
814 <*bmt | pt | rp>
815 \if@twoside
816 \lhead[\thepage]{\slshape\rightmark}
817 \chead[]{}
818 \rhead[\slshape\leftmark]{\thepage}
819 \lfoot[]{}
820 \cfoot[]{}
821 \rfoot[]{}
822 \else
823 \lhead[]{\leftmark}
824 \chead[]{}
825 \rhead[]{\thepage}
826 \lfoot[]{}
827 \cfoot[]{}
828 \rfoot[]{}
829 \fi
830 </bmt | pt | rp>
```

The header and footer of the `letter` class are defined to be:

```
831 <*le>
832 \lhead[]{}

```

```

833 \chead[]{}
834 \rhead[]{}
835 \lfoot[\small\textcolor{gray}{\@date}]{\textcolor{gray}{\@date}}
836 \cfoot[]{}
837 \rfoot[\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}]
838   {\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}}
839 \le

```

The header and footer of the exam class are defined to be:

```

840 \ex
841 \lhead[]{}
842 \chead[]{}
843 \cfoot[\small \thepage/\pageref{lastpage}]{\small \thepage/\pageref{lastpage}}
844 \if@examiner
845 \rhead[\small EXAMINER VERSION]{\small EXAMINER VERSION}
846 \AddToShipoutPicture{
847   \put(60,40){\rotatebox{60}{\textcolor{watermark}{
848     \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}%
849     \selectfont Examiner Version}}}}
850 \else
851 \rhead[\small Student nr. \@studentnr]{\small Student nr. \@studentnr}
852 \fi
853 \ex

```

Some common code remains:

```

854 \ct
855 \setlength{\headheight}{13.7pt}
856 \renewcommand*{\headrulewidth}{1pt}
857 \renewcommand*{\footrulewidth}{1pt}
858 \pagenumbering{arabic}
859 \ct
860 \mt | pt | rp | le
861 \setlength{\headheight}{13.7pt}
862 \renewcommand*{\headrulewidth}{0pt}
863 \renewcommand*{\footrulewidth}{0pt}
864 \mt | pt | rp | le
865 \ex
866 \setlength{\headheight}{13.7pt}
867 \renewcommand*{\headrulewidth}{0pt}
868 \ex

```

Remains to take care of filling

```

869 \ct | mt | pt | rp | le
870 \if@filled\else
871   \raggedright
872 \fi
873 \raggedbottom
874 \onecolumn
875 \ct | mt | pt | rp | le

```

6.11 Copyright notice

`\@crnotice` This is the standard text that will be used for the `\@crnotice` tag.

```

876 <*ct | rp>
877 \newcommand{\@crnotice}{
878   This document has been typeset using \LaTeX{} and the
879   \texttt{uantwerpendocs} package.\@
880   \@copyrightnotices
881
882 </ct | rp>
883 <ct>   \@courseversion
884 <*ct | rp>
885
886   CONFIDENTIAL AND PROPRIETARY.
887
888   \copyright{} \@versionyear{} \uantwerpendocsprop{org-ua}, \uantwerpendocsprop{arr}.
889 }
890 </ct | rp>

```

6.12 Fancy chapter headers for the phdthesis class

```

891 <*pt | rp>
892 \def\@makechapterhead#1{%
893   \vspace*{1ex}%
894   \begin{flushright}
895     \makebox[0pt][l]{\rule[-0.4em]{10cm}{1.8em}}\textcolor{white}
896     {\bf\LARGE~\chaptername~}
897     \raisebox{-24pt}{
898       \begin{tikzpicture}
899         \foreach \theta in {0,5,...,355} {
900           \node[color=white] at (\theta:0.025)
901             {\bf\fontsize{72}{12}\selectfont\thechapter};
902         }
903         \node[color=gray] at (0,0)
904           {\bf\fontsize{72}{12}\selectfont\thechapter};
905       \end{tikzpicture}
906     }\hspace*{-8pt}
907     \par\nobreak
908     \interlinepenalty\@M
909     \bf\huge\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1}
910     \par\nobreak
911   \end{flushright}
912   \rule{\textwidth}{1pt}
913   \vspace{5\p@}\par\nobreak
914 }
915 \def\@schapter#1{%
916   \@makeschapterhead{#1}%
917   \@afterheading
918 }
919 \def\@makeschapterhead#1{%
920   \vspace*{1ex}%
921   \begin{flushright}

```

```

922 \bf\LARGE\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1}
923 \end{flushright}
924 \rule{\textwidth}{1pt}
925 \vspace{5\p@}\par
926 }
927 % overwrite appendix
928 \def\appendix{
929 \setcounter{chapter}{0}
930 \renewcommand*{\thechapter}{\Alph{chapter}}
931 \renewcommand*{\chaptername}{appendixname}
932 }
933 </pt | rp>

```

6.13 Title page for the masterthesis and coursetext classes

The title page is generated using the `\maketitle` command. As the book class from which we inherit already defines this command, we need to renew it.

`\maketitle` The macro for the coursetext class:

```

934 <*ct>
935 \renewcommand\maketitle{%
936 \pagestyle{empty}
937 \begin{titlepage}
938 \AddToShipoutPicture*{%
939 \put(0,0){%
940 \if@modern
941 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
942 \clip (0,0) rectangle(\paperwidth,\paperheight);
943
944 \begin{scope}
945 \clip (2.125,20.192) rectangle (\paperwidth,6);
946 \fill[sidecolor]
947 (2.125,20.192) rectangle (\paperwidth,6);
948 \node[anchor=south west]
949 at (2.125,6)
950 {\ifx\@titlepageimage\@empty
951 \else
952 \includegraphics[keepaspectratio,
953 scale=0.01,
954 min size={18.875cm}{14.192cm}]{\@titlepageimage}
955 \fi};
956 \end{scope}
957
958
959 \node
960 [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
961 at (2.125,27)
962 {
963 \textsf{\textbf{\@title}}
964 };
965
966 \node

```



```

967 [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
968 at (2.125,25.5)
969 {
970   \textsf{\textbf{\@subtitle}}
971 };
972
973 \node
974 [anchor=base west,maincolor,text width=13.75cm,align=left,font=\LARGE]
975 at (2.125,24)
976 {\textsf{\textbf{\@author}}};
977
978
979 \node
980 [anchor=west,text width=13.75cm,align=left,font=\large,uauaside]
981 at (2.125,22)
982 {\textsf{\jointcourseswithcodes{\}}};
983
984 \fill[maincolor] (2.125,6)
985 -- (\paperwidth,6)
986 -- (\paperwidth,2.625)
987 -- (2.55,2.625)
988 arc (-90:-180:0.425)
989 -- cycle;
990
991 \node[white,anchor=west,align=left,font=\large]
992 (SN) at (2.55,5.1)
993 {
994   \begin{tabular}{@{}l@{~\,},p{14.5cm}}
995     \textsf{\lecturersname}
996     & \textsf{\textbf{\jointlecturers{ | }}}
997   \end{tabular}
998 };
999
1000 \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
1001 at (2.55,3.7)
1002 {\textsf{\@degree{}}\}
1003   \textsf{\textbf{\@faculty{ | \@academicyear \hfill}
1004     \@publishercode{}}\}
1005   \textsf{\@publisher{}};
1006
1007 \node[anchor=west] at (2.125,1.313)
1008 {\includegraphics[width=4.75cm]{\logopos}};
1009 \end{tikzpicture}
1010 \else
1011 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1012   \clip (0,0) rectangle(\paperwidth,\paperheight);
1013   \if@cameraready
1014   \else
1015   \fill[uauamain] (0,29.7) -- (2.2,29.7) -- (2.2,21.435) arc
1016   (0:-90:0.235) -- (0,21.2) -- cycle;
1017   \node[anchor=west] at (2.2,1.8)
1018   {\includegraphics[width=5.2cm]{\logoposua}};
1019   \fi
1020

```

```

1021 \node
1022 [anchor=north west,text width=14.75cm,align=left]
1023 at (5,27.1)
1024 {
1025 \fontsize{16}{20}\selectfont\textsf{\textbf{\uantwerpendocsprop{acyearname}}}\[1
1026 \fontsize{16}{20}\selectfont\textsf{\@academicyear}
1027 };
1028
1029 \node
1030 [anchor=north west,text width=14.75cm,align=left]
1031 at (5,22.7)
1032 {
1033 \fontsize{16}{20}\selectfont\textsf{\@faculty}
1034 };
1035
1036 \node
1037 [anchor=north west,text width=14.75cm,align=left] (title)
1038 at (5,20.9)
1039 {
1040 \fontsize{24}{30}\selectfont\textsf{\textbf{\@title}}\[1ex]
1041 \fontsize{18}{24}\selectfont\textsf{\@subtitle}
1042 };
1043
1044 \node
1045 [anchor=north west,below=of title,
1046 text width=14.75cm,align=left,
1047 yshift=-0.5cm]
1048 {
1049 \fontsize{12}{15}\selectfont\textsf{\@degree}}
1050 };
1051
1052 \node
1053 [anchor=north west,text width=14.75cm,align=left] (title)
1054 at (5,13.3)
1055 {
1056 \fontsize{12}{15}\selectfont\textsf{\textbf{\jointlecturers{\}}}}
1057 };
1058
1059 \node
1060 [anchor=north west,text width=14.75cm,align=left] (title)
1061 at (5,10)
1062 {
1063 \fontsize{12}{15}\selectfont\textsf{\jointcourseswithcodes{\}}
1064 };
1065
1066 \node[anchor=east]
1067 at (19,1.8)
1068 {
1069 \fontsize{12}{15}\selectfont\textsf{\@publishercode}
1070 };
1071
1072 \end{tikzpicture}
1073 \fi
1074 }

```

```

1075     }
1076 \end{titlepage}%
1077 ~\par\relax
1078 \clearpage
1079 \if@copyright
1080 \backgroundsetup{contents={Copyright University of Antwerp, All
1081     Rights Reserved}}
1082 \fi
1083 \vspace*{\stretch{1}}
1084 \@crnotice
1085 \clearpage
1086 \setcounter{footnote}{0}%
1087 \global\let\thanks\relax
1088 \global\let\maketitle\relax
1089 \global\let\@thanks\@empty
1090 \global\let\title\relax
1091 \global\let\author\relax
1092 \global\let\date\relax
1093 \global\let\and\relax
1094 \pagestyle{fancy}
1095 \thispagestyle{empty}
1096 }
1097 </ct>

```

\makefinalpage Below, one can find the code for the final page of the coursetext class:

```

1098 (*ct)
1099 \newcommand\makefinalpage{
1100     \if@cameraready
1101     \else
1102     \cleardoublepage
1103     \thispagestyle{empty}
1104     \if@copyright\NoBgThispage\fi
1105     ~% intentionally blank page
1106     \clearpage
1107     \thispagestyle{empty}
1108     \if@copyright\NoBgThispage\fi
1109     \AddToShipoutPicture*{%
1110         \put(0,0){%
1111             \if@modern
1112             \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1113                 \clip (0,0) rectangle(\paperwidth,\paperheight);
1114                 \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
1115             \end{tikzpicture}
1116             \else
1117             \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1118                 \clip (0,0) rectangle(\paperwidth,\paperheight);
1119                 \fill[uauamain] (0,21.2) rectangle (21,29.7);
1120             \end{tikzpicture}
1121             \fi
1122         }
1123     }
1124     ~
1125     \fi

```

```

1126 }
1127 </ct>

```

`\maketitle` And next, the code for the title page of the `bamathesis` class:

```

1128 <*bmt>
1129 \renewcommand\maketitle{%
1130   \pagestyle{empty}
1131   \begin{titlepage}
1132     \AddToShipoutPicture*{%
1133       \put(0,0){%
1134         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1135           \clip (0,0) rectangle(\paperwidth,\paperheight);
1136           \fill[lightgray]
1137             (2.125,{\paperheight-7.5cm}) rectangle (\paperwidth,6);
1138
1139           \node
1140             [anchor=west,text width={\paperwidth-5cm},align=left,font=\Huge,uauaside]
1141             at (2.125,{\paperheight-3cm})
1142             {
1143               \textsf{\textbf{\@title}}
1144             };
1145
1146           \node
1147             [anchor=west,text width={\paperwidth-5cm},align=left,font=\Large,uauaside]
1148             at (2.125,{\paperheight-5cm})
1149             {
1150               \textsf{\textbf{\@subtitle}}
1151             };
1152
1153           \node
1154             [anchor=base west,uauamain,
1155             text width={\paperwidth-5cm},align=left,font=\LARGE]
1156             at (2.125,{\paperheight-6.5cm})
1157             {\textsf{\textbf{\@author}}};
1158
1159           \fill[gray] (2.125,6)
1160             -- (\paperwidth,6)
1161             -- (\paperwidth,2.625)
1162             -- (2.55,2.625)
1163             arc (-90:-180:0.425)
1164             -- cycle;
1165
1166           \node[white,anchor=west,align=left,font=\large]
1167             (SN) at (2.55,4.9)
1168             {
1169               \begin{tabular}{@{}l@{~\,}p{14.5cm}}
1170                 \textsf{\supervisorsname}
1171                 & \textsf{\textbf{\jointsupervisors{ | }}}
1172               \end{tabular}
1173             };
1174
1175           \node[white,anchor=west,text width=17.5cm,align=left,font=\small]

```

```

1177         at (2.55,3.7)
1178         {\textsf{\uantwerpendocsprop{bmthesisname}
1179             \@degree{}}\
1180             \textsf{\textbf{\@faculty{}}
1181             | \@defense\location, \@defensedate}}};
1182
1183         \node[anchor=west] at
1184         (2.125,1.313)
1185         {\includegraphics[width=4.75cm]{\logoposua}};
1186     \end{tikzpicture}
1187 }
1188 }
1189 \end{titlepage}%
1190 ~\par\relax
1191 \clearpage
1192 \setcounter{footnote}{0}%
1193 \global\let\thanks\relax
1194 \global\let\maketitle\relax
1195 \global\let\@thanks\@empty
1196 \global\let\title\relax
1197 \global\let\author\relax
1198 \global\let\date\relax
1199 \global\let\and\relax
1200 \pagestyle{fancy}
1201 \thispagestyle{empty}
1202 }
1203 </bmt>

```

`\makefinalpage` Below, one can find the code for the final page of the `bamathesis` class:

```

1204 <*bmt>
1205 \newcommand\makefinalpage{
1206     \cleardoublepage
1207     \thispagestyle{empty}
1208     ~% intentionally blank page
1209     \clearpage
1210     \thispagestyle{empty}
1211     \begin{tikzpicture}[remember picture,overlay]
1212         \node at (current page.center) {
1213             \begin{tikzpicture}[inner sep=0pt]
1214                 \clip (0,0) rectangle(\paperwidth,\paperheight);
1215                 \fill[lightgray] (0,0) rectangle (2.125cm,2.625cm);
1216             \end{tikzpicture}
1217         };
1218     \end{tikzpicture}
1219 }
1220 </bmt>

```

6.14 Title page for the `phdthesis` classes

The title page is generated using the `\maketitle` command. As the book class from which we inherit already defines this command, we need to renew it.

`\maketitle` Below, one can find the code for the title page of the `phdthesis` class:

```

1221 <*pt>
1222 \renewcommand\maketitle{%
1223   \pagestyle{empty}
1224   \begin{titlepage}
1225     \AddToShipoutPicture*{%
1226       \put(0,0){%
1227         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1228           \useasboundingbox (0,0) rectangle(\paperwidth,\paperheight);
1229           \fill[lightgray]
1230             (2.125,19) rectangle (\paperwidth+3mm,6);
1231           \begin{scope}
1232             \clip (2.125,19) rectangle (\paperwidth+3mm,6);
1233             \node[anchor=south west]
1234               at (2.125,6)
1235               {\ifx\@titlepageimage\@empty
1236                \else
1237                  \includegraphics[keepaspectratio,
1238                    scale=0.01,
1239                    min size={16.175cm}{13cm}]{\@titlepageimage}
1240                \fi};
1241           \end{scope}
1242
1243           \node
1244             [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1245             at (2.125,23.5)
1246             {
1247               \textsf{\textbf{\@title}}
1248             };
1249
1250           \node
1251             [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1252             at (2.125,21.5)
1253             {
1254               \textsf{\textbf{\@subtitle}}
1255             };
1256
1257           \node
1258             [anchor=base west,maincolor,
1259             text width=13.75cm,align=left,font=\LARGE]
1260             at (2.125,20)
1261             {\textsf{\textbf{\@author}}};
1262
1263           \fill[maincolor] (2.125,6)
1264             -- (\paperwidth+3mm,6)
1265             -- (\paperwidth+3mm,2.625)
1266             -- (2.55,2.625)
1267             arc (-90:-180:0.425)
1268             -- cycle;
1269
1270           \node[white,anchor=west,align=left,font=\large]
1271             (SN) at (2.55,4.9)
1272           {

```

```

1273         \begin{tabular}{@{}l@{-\,}p{11.5cm}}
1274             \textsf{\supervisorsname}
1275             & \textsf{\textbf{\jointssupervisors{ | }}}
1276         \end{tabular}
1277     };
1278
1279
1280     \node[white,anchor=west,text width=14.5cm,align=left,font=\small]
1281     at (2.55,3.7)
1282     {\textsf{\uantwerpendocsprop{pthesisnamei}
1283         \@degree{}}\}
1284     \textsf{\textbf{\@faculty{
1285         | \@defenselocation, \@defensedate}}}};
1286
1287     \node[anchor=west] at
1288     (2.125,1.313)
1289     {\includegraphics[width=4.75cm]{\logoposua}};
1290 \end{tikzpicture}
1291 }
1292 }
1293 \end{titlepage}%
1294 ~\par\relax
1295 \cleardoublepage
1296 \begin{center}
1297     \includegraphics[width=4.75cm]{\logoposua}
1298     \vfill
1299     \@faculty\
1300     \@degree\par
1301     \vfill
1302     \Huge\textsf{\@title}\par
1303     \large\textsf{\@subtitle}\par
1304     \vfill
1305     \normalsize\uantwerpendocsprop{pthesisnamei}\
1306     \@degree\
1307     \uantwerpendocsprop{pthesisnameii}\
1308     \medskip
1309     \textbf{\@author}
1310     \vfill
1311     \begin{minipage}[b]{0.4\textwidth}
1312         \@defenselocation, \@defensedate
1313     \end{minipage}
1314     \hfill
1315     \begin{minipage}[b]{0.4\textwidth}
1316         \flushright
1317         \supervisorsname\
1318         \jointssupervisors{\}
1319     \end{minipage}
1320 \end{center}
1321 \clearpage
1322 \textbf{\uantwerpendocsprop{jurynome}}\hfill\par
1323 \textbf{\uantwerpendocsprop{jurychairmanname}}\hfill\break
1324 \@jurychairman{\ifdefvoid{\@jurychairmanaff}{}, \@jurychairmanaff}\
1325 \hfill\break
1326 \textbf{\supervisorsname}\hfill\break

```

```

1327 \joint supervisors with affiliation{\\} \\
1328 \hfill \break
1329 \textbf{\uantwerpendocsprop{jury members name}} \hfill \break
1330 \joint jury members{\\}
1331 \hfill \break
1332 \vfill
1333 \textbf{Contact} \\
1334 \smallskip
1335 \@author \\
1336 \@affiliation \\
1337 \@address \\
1338 \vfill
1339 \copyright{} \defensedate{} \@author \\
1340 \uantwerpendocsprop{arr}.
1341 \vfill
1342 \begin{minipage}[b]{.5\linewidth}
1343   \ifdefempty{\@isbn}{\{ISBN \@isbn\}~\\
1344   \ifdefempty{\@depot}{\{Wettelijk depot \@depot\}~\\
1345 \end{minipage}
1346 \hfill
1347 \ifdefempty{\@isbn}{\{
1348   \begin{minipage}[b]{.5\linewidth}
1349     \expandafter\EAN \@isbn
1350   \end{minipage}
1351 }
1352 \setcounter{footnote}{0}%
1353 \global\let\thanks\relax
1354 \global\let\maketitle\relax
1355 \global\let\@thanks\@empty
1356 \global\let\title\relax
1357 \global\let\author\relax
1358 \global\let\date\relax
1359 \global\let\and\relax
1360 \pagestyle{fancy}
1361 \thispagestyle{empty}
1362 \
1363 }
1364 \>/pt\<

```

`\makefinalpage` Below, one can find the code for the final page of the `phdthesis` class:

```

1365 \>pt\<
1366 \newcommand\makefinalpage{
1367   \cleardoublepage
1368   \thispagestyle{empty}
1369   ~% intentionally blank page
1370   \clearpage
1371   \thispagestyle{empty}
1372   \AddToShipoutPicture*{%
1373     \put(0,0){%
1374       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1375         \useasboundingbox (0,0) rectangle (\paperwidth,\paperheight);
1376         \fill[sidecolor] (-3mm,-3mm) rectangle (2.125cm,2.625cm);
1377       \end{tikzpicture}

```



```

1378     }
1379   }
1380   ~
1381 }
1382 </pt>

```

6.15 Title page for the report classes

The title page is generated using the `\maketitle` command. As the report class from which we inherit already defines this command, we need to renew it.

`\maketitle` Below, one can find the code for the title page of the `report` class:

```

1383 <rp>
1384 \renewcommand\maketitle{%
1385   \pagestyle{empty}
1386   \begin{titlepage}
1387     \AddToShipoutPicture*{%
1388       \put(0,0){%
1389         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1390           \clip (0,0) rectangle(\paperwidth,\paperheight);
1391           \fill[lightgray]
1392             (2.125,20.192) rectangle (\paperwidth,6);
1393           \begin{scope}
1394             \clip (2.125,20.192) rectangle (\paperwidth,6);
1395             \node[anchor=south west]
1396               at (2.125,6)
1397               {\ifx\@titlepageimage\@empty
1398                \else
1399                  \includegraphics[keepaspectratio,
1400                    scale=0.01,
1401                    min size={18.875cm}{14.192cm}]{\@titlepageimage}
1402                \fi};
1403           \end{scope}
1404
1405           \node
1406             [anchor=west,text width=17cm,align=left,font=\Huge,uauaside]
1407             at (2.125,\paperheight-3cm)
1408             {
1409               \textsf{\textbf{\@title}}
1410             };
1411
1412           \node
1413             [anchor=west,text width=17cm,align=left,font=\Large,uauaside]
1414             at (2.125,\paperheight-5cm)
1415             {
1416               \textsf{\textbf{\@subtitle}}
1417             };
1418
1419           \node
1420             [anchor=base west,maincolor,
1421             text width=17cm,align=left,font=\LARGE]
1422             at (2.125,\paperheight-6.5cm)

```

```

1423         {\textsf{\textbf{\@author}}};
1424
1425         \fill[maincolor] (2.125,6)
1426         -- (\paperwidth,6)
1427         -- (\paperwidth,2.625)
1428         -- (2.55,2.625)
1429         arc (-90:-180:0.425)
1430         -- cycle;
1431
1432         \node[white,anchor=west,text width=17cm,align=left,font=\small]
1433         at (2.55,5.3)
1434         {\textsf{\textbf{\@extra}}};
1435
1436         \node[white,anchor=west,text width=17cm,align=left,font=\small]
1437         at (2.55,4)
1438         {\textsf{\textbf{\@affiliation{
1439             | \@versionyear}\@
1440             \@address}}};
1441
1442         \node[anchor=west] at
1443         (2.125,1.313)
1444         {\includegraphics[width=4.75cm]{\logopos}};
1445     \end{tikzpicture}
1446 }
1447 }
1448 \end{titlepage}%
1449 ~\par\relax
1450 \cleardoublepage
1451 \begin{center}
1452     \includegraphics[width=4.75cm]{\logopos}
1453     \vfill
1454     \@affiliation\\
1455     \@extra\par
1456     \vfill
1457     \Huge\textsf{\@title}\par
1458     \large\textsf{\@subtitle}\par
1459     \vfill
1460     \textbf{\@author}
1461     \vfill
1462 \end{center}
1463 \clearpage
1464 \vfill
1465 \textbf{Contact}\\
1466 \smallskip
1467 \@author\\
1468 \@affiliation\\
1469 \@address\\
1470 \vfill
1471 \copyright{} \@versionyear{} \@author\\
1472 \uantwerpendocsprop{arr}.
1473 \vfill
1474 \setcounter{footnote}{0}%
1475 \global\let\thanks\relax
1476 \global\let\maketitle\relax

```

```

1477 \global\let\@thanks\@empty
1478 \global\let\title\relax
1479 \global\let\author\relax
1480 \global\let\date\relax
1481 \global\let\and\relax
1482 \pagestyle{fancy}
1483 \thispagestyle{empty}
1484 \
1485 }
1486 \rp>

```

`\makefinalpage` Below, one can find the code for the final page of the `phdthesis` class:

```

1487 <rp>
1488 \newcommand\makefinalpage{
1489 \cleardoublepage
1490 \thispagestyle{empty}
1491 ~% intentionally blank page
1492 \clearpage
1493 \thispagestyle{empty}
1494 \begin{tikzpicture}[remember picture,overlay]
1495 \node at (current page.center) {
1496 \begin{tikzpicture}[inner sep=0pt]
1497 \clip (0,0) rectangle(\paperwidth,\paperheight);
1498 \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
1499 \end{tikzpicture}
1500 };
1501 \end{tikzpicture}
1502 }
1503 </rp>

```

6.16 Title page for the letter class

6.16.1 Title Page

`\maketitle` The top of the letter is generated using the `\maketitle` command.

```

1504 <*le>
1505 \newcommand\maketitle{%
1506 \pagestyle{fancy}
1507 \thispagestyle{empty}
1508 \begin{tikzpicture}[overlay,remember picture]
1509 \path (current page.north west) +(1.8cm,-1.2cm)
1510 node[anchor=north west] {
1511 \includegraphics[height=1.1cm]{\@logo}
1512 };
1513 \draw (current page.north west)
1514 +(1cm,-98mm) -- +(1.5cm,-98mm);
1515 % 90 x 45
1516 % pos: 20mm van kant, 15mm van onderkant
1517 \path (current page.north east) +(-100mm,-65mm)
1518 node[anchor=west,text width=80mm,align=left] {

```

```

1519 \scriptsize\textcolor{gray}{\uline{\@returnaddress}}\\*
1520 \normalsize\@to\\*
1521 \@toorganization\\*
1522 \@toaddress
1523 };
1524 \end{tikzpicture}
1525 ~\\[3ex]
1526 \textcolor{uacorpblue}{\bf \@sender}
1527 \ifx\@senderrole\@emptymacro\\[1.75ex]\else \\*\@senderrole\\[1.75ex]\fi
1528 \@faculty
1529 \ifx\@unit\@emptymacro\else\\* \@unit\fi~\\[1.75ex]
1530 \@address\\[1.75ex]
1531 \ifx\@email\@emptymacro\else E \@emailuser\tat{}\@emaildomain\\fi
1532 \ifx\@phone\@emptymacro\else T \@phone\\fi
1533 \ifx\@fax\@emptymacro\else F \@fax\\fi
1534 \ifx\@mobile\@emptymacro\else M \@mobile\\fi
1535 ~\\[4ex]
1536 \begin{tikzpicture}[anchor=north west,align=left,outer sep=0,inner sep=0]
1537 \path
1538 (0,0) node { \scriptsize \strut
1539 \textcolor{gray}{\uppercase\expandafter{\uantwerpenprops{datename}}} } }
1540 (4cm,0) node { \scriptsize \strut
1541 \textcolor{gray}{\uppercase\expandafter{\uantwerpenprops{subjectname}}} } }
1542 (0,-2.5ex) node { \strut \@date }
1543 (4cm,-2.5ex) node[align=left] { \strut \@subject };
1544 \end{tikzpicture}~\\[4ex]
1545 }
1546 \le

```

The trailer of the page is automatically generated at the end of the document:

```

1547 \*le
1548 \AtEndDocument{
1549 \@closing\\*[3ex]\@signature~\\[3ex]
1550 \@sender
1551 \ifx\@senderrole\@emptymacro\\[8ex]\else\\*\@senderrole\\[8ex]\fi
1552 \setlength{\parskip}{0em}
1553 \ifx\@carboncopy\@emptymacro\else CC: \@carboncopy\\[4ex]\fi
1554 \ifx\@enclosed\@emptymacro\else ENCL: \@enclosed\fi
1555 \label{lastpage}
1556 }
1557 \le

```

6.17 Title page for the exam class

Now Groep has been replaced by Reeks to be consistent with UAntwerpen PC-room nomenclature

`\maketitle` The title page of the exam class is generated using the `\maketitle` command.

```

1558 \*ex
1559 \renewcommand\maketitle{%

```

```

1560 \pagestyle{fancy}
1561 \AddToShipoutPicture*{%
1562   \put(0,0){%
1563     \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1564       \clip (0,0) rectangle(\paperwidth,\paperheight);
1565       \fill[lightgray]
1566         (2.125,{\paperheight-7cm}) rectangle (\paperwidth,6);
1567
1568       \node
1569         [anchor=west,text width={\paperwidth-5cm},align=left]
1570         at (2.125,{\paperheight-3cm})
1571         {%
1572           \fontfamily{phv}\fontsize{18}{22}\fontseries{b}%
1573           \fontshape{n}\selectfont%
1574           \@course{}
1575           \ifx\@exampart\@emptymacro
1576           \else --- \@exampart\fi
1577         };
1578       \node
1579         [anchor=west,text width={\paperwidth-5cm},align=left]
1580         at (2.125,{\paperheight-4cm})
1581         {%
1582           \fontfamily{phv}\fontsize{12}{18}\fontseries{b}%
1583           \fontshape{n}\selectfont%
1584           \@coursecode
1585         };
1586
1587       \node
1588         [anchor=west,text width={\paperwidth-5cm},align=left,font=\large]
1589         at (2.125,{\paperheight-5cm})
1590         {%
1591           \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
1592           \fontshape{n}\selectfont%
1593           \uantwerpendocsprop{seriesname} \@examgroupnumber{} \hfill \@examdate{}
1594         };
1595
1596       \node[anchor=south west,align=left,inner sep=0pt] at (3,21)
1597       {%
1598         \fontfamily{phv}\fontsize{14}{19}\fontseries{b}%
1599         \fontshape{n}\selectfont%
1600         \uantwerpendocsprop{examname}
1601       };
1602
1603       \node[anchor=south west,align=left,inner sep=0pt] at (3,19)
1604       {%
1605         \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
1606         \fontshape{n}\selectfont%
1607         \uantwerpendocsprop{lastname}
1608       };
1609       \foreach \nn in {0,1,...,33} {
1610         \draw[fill=white] (3,18) ++({0.5*\nn},0) rectangle +(0.5,0.8);
1611       }
1612
1613       \node[anchor=south west,align=left,inner sep=0pt] at (3,17)

```

```

1614 {%
1615     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
1616     \fontshape{n}\selectfont%
1617     \uantwerpendocsprop{firstname}
1618 };
1619
1620 \foreach \nn in {0,1,...,23} {
1621     \draw[fill=white] (3,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
1622 }
1623
1624 \node[anchor=south west,align=left,inner sep=0pt] at (16,17)
1625 {%
1626     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
1627     \fontshape{n}\selectfont%
1628     \uantwerpendocsprop{docketname}
1629 };
1630 \foreach \nn in {0,1,...,7} {
1631     \draw[fill=white] (16,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
1632 }
1633
1634 \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
1635 at (3,14)
1636 {%
1637     \fontfamily{phv}\fontsize{12}{21}\fontseries{m}%
1638     \fontshape{n}\selectfont%
1639     \uantwerpendocsprop{examdurationname}: \@examlength
1640 };
1641 \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
1642 at (3,11)
1643 {%
1644     \fontfamily{phv}\fontsize{12}{15}\fontseries{m}%
1645     \fontshape{n}\selectfont%
1646     \begin{tabular}{@{}l@{}l}%
1647         \uantwerpendocsprop{examstartname}& : & \@tstart\\
1648         \uantwerpendocsprop{examendname} & : & \@tend
1649     \end{tabular}
1650 };
1651
1652 \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
1653 at (3,8)
1654 {%
1655     \fontfamily{phv}\fontsize{12}{21}\fontseries{m}%
1656     \fontshape{n}\selectfont%
1657     \roomsname: \jointrooms{, }
1658 };
1659
1660 \node
1661 [anchor=base west,uauamain,
1662 text width={\paperwidth-5cm},align=left,font=\LARGE]
1663 at (2.125,{\paperheight-6.5cm})
1664 {\textsf{\textbf{\@author}}};
1665
1666 \fill[gray] (2.125,6)
1667 -- (\paperwidth,6)

```

```

1668      -- (\paperwidth,2.625)
1669      -- (2.55,2.625)
1670      arc (-90:-180:0.425)
1671      -- cycle;
1672
1673      \node[white,anchor=west,align=left,font=\large]
1674      (SN) at (2.55,4.9)
1675      {
1676        \begin{tabular}{@{}l@{~\,},p{14.5cm}}
1677          \textsf{\lecturersname}
1678          & \textsf{\textbf{\jointlecturers{ | }}}
1679        \end{tabular}
1680      };
1681
1682      \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
1683      at (2.55,3.7)
1684      {\textsf{@degree{}}\\\
1685       \textsf{\textbf{@faculty{}}}};
1686
1687      \node[anchor=west] at (2.125,1.313)
1688      {\includegraphics[width=4.75cm]{\logopos}};
1689      \end{tikzpicture}
1690    }
1691  }
1692  ~\par\relax
1693  \clearpage
1694  \lfoot[\small \shorttitle]{\small \shorttitle}
1695  \rfoot[\small Groep \examgroupnumber{} ---
1696  \@academicyear]{\small Groep \examgroupnumber{} --- \@academicyear}
1697  \renewcommand*{\footrulewidth}{1pt}
1698 }
1699 </ex>

```

6.18 Auxiliary functions to typeset exams

\question Add a small box with the weight of the question on the current line (right aligned).

```

1700 <*ex>
1701 \newcounter{question}
1702 \setcounter{question}{0}
1703 \renewcommand*\thequestion{\@arabic\c@question}
1704 \newcommand{\question}[1]{
1705   \stepcounter{question}
1706   \thequestion.~#1%
1707 }
1708 </ex>

```

\questionweight Add a small box with the weight of the question on the current line (right aligned).

```

1709 <*ex>
1710 \newcommand*\questionweight[1]{%
1711   \hspace{\fill}

```

```

1712 \begin{tabular}{|c|}
1713 \hline
1714 \small \uantwerpendocsprop{weightname}: #1\\
1715 \hline
1716 \end{tabular}\\
1717 }
1718 \</ex>

```

`\engdut` typesets the question in two columns, the left column taking the English variant of the question and the right column taking the Dutch variant.

```

1719 \<ex>
1720 \newcommand{\engdut}[2]{%
1721 \begin{tabular}{ccc}%
1722 \selectlanguage{english}%
1723 \begin{minipage}[t]{0.45\textwidth}%
1724 #1
1725 \end{minipage}%
1726 &~~~&
1727 \selectlanguage{dutch}%
1728 \begin{minipage}[t]{0.45\textwidth}%
1729 #2
1730 \end{minipage}%
1731 \end{tabular}
1732 \selectlanguage{english}%
1733 }
1734 \</ex>

```

`\setmcsymbol` sets the symbol to be used as multiple choice mark (by default a square).

```

1735 \<ex>
1736 \newcommand*\@mcsymbol{\square}
1737 \newcommand*\setmcsymbol[1]{\renewcommand*\@mcsymbol{#1}}
1738 \</ex>

```

`\mc` typesets a multiple choice answer candidate (monolingual, i.e. in a single column).

```

1739 \<ex>
1740 \newcommand\mc[1]{%
1741 \hfill\break\qqquad\begin{tabular}{cc}
1742 \<math>\@mcsymbol\</math>
1743 &
1744 \begin{minipage}[t]{0.9\textwidth}%
1745 #1
1746 \end{minipage}%
1747 \end{tabular}
1748 }
1749 \</ex>

```

`\engdutm` typesets a multiple choice answer candidate in two columns, the left column taking the English variant of the question and the right column taking the Dutch variant.


```

1750 <*ex>
1751 \newcommand{\engdutm}[2]{%
1752   \hfill\break\begin{tabular}{cccc}
1753     $\@mcsymbol$
1754     &
1755     \selectlanguage{english}%
1756     \begin{minipage}[t]{0.42\textwidth}%
1757       #1
1758     \end{minipage}%
1759     &---&
1760     \selectlanguage{dutch}%
1761     \begin{minipage}[t]{0.42\textwidth}%
1762       #2
1763     \end{minipage}%
1764   \end{tabular}
1765   \selectlanguage{english}%
1766 }
1767 </ex>

```

`\insertsolutionspagepartial` fills the remainder of the page with 'fill-out' squares. as observing/controlling the current line position in L^AT_EX is not easy, one has to provide the number of centimeters below the bottom of the page, one wants to start the fill-out squares.

```

1768 <*ex>
1769 \newcommand\insertsolutionspagepartial[1]{
1770   ~\relax
1771   \AddToShipoutPicture*{%
1772     \put(0,0){%
1773       \begin{tikzpicture}
1774         \clip (0,0) rectangle (21,#1);
1775         \draw[densely dotted, step=0.5cm,black!20] (0.999,0.990) grid (20,1.5);
1776         \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
1777         \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
1778
1779         \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,27);
1780         \draw[densely dotted, step=0.5cm,black!20] (0.999,27) grid (16,28);
1781         \draw[densely dotted, step=0.5cm,black!20] (19.499,27) grid (20,28);
1782         \draw[densely dotted, step=0.5cm,black!20] (0.99,27.999) grid
1783           (20,28.5);
1784         \draw[ultra thick] (1,#1) -- (20,#1);
1785       \end{tikzpicture}
1786     }%
1787   }%
1788   \clearpage
1789   \relax
1790 }
1791 </ex>

```

`\insertsolutionspage` inserts a full solutions page, i.e. flushes the current page and inserts a full page with 'fill-out' squares. The argument allows for specifying a watermark text (e.g. 'Scrap paper').

```

1792 <*ex>

```

```

1793 \newcommand\insertsolutionspage[1]{
1794   \clearpage
1795   \AddToShipoutPicture*{%
1796     \put(0,0){%
1797       \begin{tikzpicture}
1798         \clip (0,0) rectangle (21,29.5);
1799         \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
1800         \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
1801
1802         \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,28);
1803         \draw[densely dotted, step=0.5cm,black!20] (0.999,28) grid (16,28.5);
1804         \draw[densely dotted, step=0.5cm,black!20] (19.499,28) grid (20,28.5);
1805       \end{tikzpicture}
1806     }
1807     \put(120,150){\rotatebox{60}{\textcolor{watermark}{
1808       \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}\selectfont
1809       #1}
1810     }
1811   }
1812 }%
1813 ~\relax
1814 }
1815 \ex>

```

We add a lastpage label to the final page

```

1816 \ex>
1817 \AtEndDocument{
1818   \label{lastpage}
1819 }
1820 \ex>
1821 % \end{macrocode
1822 %
1823 % \subsection{References}
1824 %   \begin{macrocode}
1825 <*ct | bmt | pt | rp>
1826 \AtBeginDocument{
1827   \ifpackageloaded{hyperref}{
1828     \hypersetup{
1829       breaklinks=true,
1830       colorlinks=true,
1831       citecolor=black,
1832       filecolor=black,
1833       linkcolor=black,
1834       pageanchor=true,
1835       pdfpagemode=UseOutlines,
1836       urlcolor=black,
1837       pdftitle={\@title},
1838       pdfsubject={\@subtitle},
1839       pdfauthor={\@author}
1840     }
1841   }{}
1842 }
1843 </ct | bmt | pt | rp>

```

7 The beamer theme

7.1 User guide

```
<*bmrug>
\documentclass[aspectratio=1610]{beamer}
\usetheme[ti]{uantwerpen}
\usepackage[english]{babel}

The packages below are for demonstration purpose only.
They are not required for the template to work
\usepackage{metalogo}
\usepackage{kantlipsum}
\usepackage{pgfplots}
\usepackage{booktabs}

some stuff to typeset code
\newcommand*\command[1]{\tt \textbackslash #1}}
\NewEnviron{codesnippet}[1][0.8\textwidth]{
  \scriptsize
  \quad\framebox[#1][l]{\texttt{
    \setlength\textwidth{#1}
    \begin{minipage}{0.9\textwidth}
      \BODY
    \end{minipage}
  }}
}
}
\newcommand*\ind[1][2ex]{\hspace*{#1}}
\newcommand*\bframe[1][\ ]{\command{begin}\{#1frame\}}
\newcommand*\eframe[1][\ ]{\command{end}\{#1frame\}}

\title{This is your \texttt{\textbackslash}title{}}
\subtitle[my short title]{This is your \texttt{\textbackslash}subtitle{}}
\date[my short date]{This is your \texttt{\textbackslash}date{}}
\author[my short author]{This is your \texttt{\textbackslash}author{}}

\begin{document}

\begin{frame}[negativefill]
  \maketitle
\end{frame}

\begin{frame}
  \maketitle
\end{frame}

\begin{frame}[negative]
  \maketitle
\end{frame}

\begin{frame}
  {What's on the menu?}
```

```

{Bon app\'etiti!}
~\\
\tableofcontents
\end{frame}

\section{Loading the theme and theme options}

\begin{frame}[negative]
\sectionpage
\end{frame}

\begin{frame}
{Using our beamer theme}

The \texttt{uantwerpen} beamer theme is distributed by CTAN. It
should be installed with your \TeX{} distribution by default.

You can load the package in your preamble as:

\begin{codesnippet}
\command{documentclass}[aspectratio=1610]\{beamer\}\\
\command{usetheme}[theme-options-go-here]\{uantwerpen\}\\
\command{usepackage}[english]\{babel\}
\end{codesnippet}

\heading{Remarks}
\begin{itemize}
\item The theme behaves well for all supported beamer aspect
ratios.
\item $16\times 10$ is currently your best option to maximize your
slide size given a modern LCD-projector!
\item Only \texttt{dutch} and \texttt{english} are supported.
The correct logoware is selected using the babel language option!
\end{itemize}
\end{frame}

\begin{l3qframe}[t,rqgraphic={
\begin{minipage}{0.35\textwidth}
\footnotesize
\begin{center}
\begin{tabular}{c}
\toprule
\bfseries option\\
\midrule
\tt be \\
\tt fbd \\
\tt ggw \\
\tt lw \\
\tt ow \\
\tt re \\
\tt sw \\
\tt ti \\
\tt we \\
\tt iob

```

```

        \bottomrule
      \end{tabular}
    \end{center}
  \end{minipage}
}]
{Theme options}{
The following theme options may come in handy:
\begin{description}
\item[\tt X] to invoke your own faculty's colors and logos,
  with X one of the options in the table on the right\\
  (I assume you know your faculty abbreviation)
\item[\tt nofonts] disables font loading, so you can load your own fonts
\item[\tt rgb] to select RGB color encoding (best for projecting, default)
\item[\tt cmyk] to select CMYK color encoding (best for printing)
\item[\tt neutralcolors] to disable your faculty colors and use the
  standard UAntwerpen colors
\end{description}
\medskip

The defaults of the theme are:
\begin{itemize}
\item no faculty option ($\rightarrow$ standard UAntwerpen logos)
\item \texttt{rgb}
\end{itemize}

\end{lstframe}

\begin{frame}[t]
  {A note on the compiler you are using}
  {Fonts galore}

  Depending on the type of compiler you use, a different font scheme
  is loaded:
  \begin{description}
\item[\LaTeX] --- ancient compiler - no support\\
    Don't use!
\item[pdf\LaTeX] --- very old school compiler - no OTF/TTF support\\
    Computer Modern Sans Serif is used as font
\item[\XeLaTeX] --- old school compiler - the first to have OTF/TTF
    support\\
    Calibri is used as font (with cmbright math fonts)
\item[\LuaLaTeX] --- current compiler - your best option\\
    Calibri is used as font (with cmbright math fonts)
\end{description}

\end{frame}

\section{Title slides}

\begin{frame}[negative]
  \sectionpage
\end{frame}

\begin{frame}[t]

```

```

{Title slides}
\heading{Contents} ---
The contents of the title slide can be set in your preamble
using the classical \LaTeX{} commands:
\begin{itemize}
\item \command{title}\{\}
\item \command{subtitle}\{\}
\item \command{author}\{\}
\item \command{date}\{\}
\end{itemize}
We don't specify an institute, as the logos do so.

\heading{Code} --- The titleslide is easily typeset as:\\
\begin{codesnippet}
  \bframe[] [option]\\
  \ind\command{maketitle}\\
  \eframe
\end{codesnippet}

  with no option, or one of: \texttt{normal}, \texttt{negative},
  \texttt{negativefill}.
\end{frame}

\section{Regular slides}

\subsection{Bare}

\begin{frame}[negative]
  \sectionpage
\end{frame}

\begin{frame}[negative]
  \subsectionpage
\end{frame}

\begin{frame}[t]
  {Frame titles}
  {And subtitles}
  \heading{How to specify them!}\\
  Titles are specified using \command{frametitle}\{\} or
  \command{framesubtitle}\{\} or even easier as first and second argument
  to the \texttt{frame} environment (or their derived versions).

  \begin{codesnippet}
    \bframe[] [options go here, comma separated]\\
    \ind\{first argument\}\\
    \ind\{second argument\}\\
    \ind frame contents \\
    \eframe
  \end{codesnippet}
  \bigskip

  \heading{Don't need them?}\\
  If you need a slide without titles: just don't specify them!

```

```

\heading{Want to get rid of the footer as well?}\\
Specify the \texttt{plain} option to the frame.

\end{frame}

\begin{frame}[t]
{The canvas}

\heading{Flavors} --- The canvas of the slide has four flavors:
\begin{description}
\item[normal]
the ordinary white background slide
\item[negativefill]
a reverse video slide on a background (in maincolor) without white
margins
\item[negative]
a reverse video slide on a bakcground (in maincolor) with white
margins
\item[graphicfill]
a graphic canvas without white margins (graphic can be photo,
graph, \ldots)
\item[graphic] a graphic canvas with white margins (graphic can be
anything)
\end{description}
They are specified as options to the frame environment (or its
derivatives).

\heading{Remarks}
\begin{itemize}
\item You don't need to specify the normal canvas, it is the
default.
\item In handout mode the negative and negativefill canvas will be
typeset as normal canvas (to allow for easy printing).
\item The graphic option has many variants that we will discuss later.
\end{itemize}
\end{frame}

\begin{frame}[negativefill]
{A negativefill slide}
{with a subtle subtitle}
\kant[1]
\end{frame}

\begin{frame}[negative,t]
{A negative slide}
{with a subtle subtitle}
Don't do this! Don't use a title and subtitle, nor straight text
but put material on this slide that does not touch or cross the
edges of the background!\\
E.g., the graph on the bottom right
\place[anchor=south east] at (0.9,0.1) {
\begin{tikzpicture}[white]
\begin{axis}

```

```

        [width=4cm,height=5cm,grid=both,font=\footnotesize]
        \addplot[white] {x^2};
    \end{axis}
\end{tikzpicture}
}
The best advice is not to reserve this canvas for title frames and
intermission slides.
\end{frame}

\begin{frame}[t]
    {Vertical alignment}

    You can easily specify the vertical alignment of your frame
    contents, using the options
    \begin{description}
        \item[\texttt{t}] for top
        \item[\texttt{c}] for center
        \item[\texttt{b}] for bottom
    \end{description}

    Example:\\[1ex]
    \begin{codesnippet}
        \bframe[] [t]\\
        \ind\{Title\}\\
        \ind\{Subtitle\}\\
        \ind frame contents\\
        \eframe
    \end{codesnippet}

\end{frame}

\begin{frame}[t]
    {Colors}
    {What a wonderful world}

    \heading{Standard colors}\\
    You can select the theme colors using:\\
    \textcolor{maincolor}{Main color}:
    can be specified as \LaTeX-color \emph{maincolor}\\
    \textcolor{sidecolor}{Side color}:
    can be specified as \LaTeX-color \emph{sidecolor}\\
    \textcolor{basecolor}{Base color}:
    can be specified as \LaTeX-color
    \emph{basecolor}

    \heading{Advice}\\
    \begin{itemize}
        \item Stick to the standard colors or use grayscale tints!
        \item Only use color when functional (e.g. in graphs)
    \end{itemize}

    \heading{Alert}
    You can use \alert{\command{alert{}}}} to grab the attention of the
    user. It will typeset your content in \alert{red}.

```



```

\heading{Not taking any advice?}\\
You can fiddle with the colors, but do so in smart way.
Use \command{setbeamercolor}. You can see how it is used in the
\texttt{beamercolorthemeuantwerpen.sty} file.
\end{frame}

\begin{frame}[t]
{Logo demo}

The logo's can be used as follows (but you should not need them):
\begin{itemize}
\item \command{includegraphics[width=3cm]{\command{logopos}}}\
\begin{center}
\begin{tikzpicture}
\draw[fill,white] (0,0) rectangle node
{\includegraphics[width=3cm]{\logopos}} (4,1.25);
\end{tikzpicture}
\end{center}
\item \command{includegraphics[width=3cm]{\command{logoneg}}}\
\begin{center}
\begin{tikzpicture}
\draw[fill] (0,0) rectangle node
{\includegraphics[width=3cm]{\logoneg}} (4,1.25);
\end{tikzpicture}
\end{center}
\item \command{includegraphics[width=3cm]{\command{logomonowhite}}}\
\begin{center}
\begin{tikzpicture}
\draw[fill] (0,0) rectangle node
{\includegraphics[width=3cm]{\logomonowhite}} (4,1.25);
\end{tikzpicture}
\end{center}
\end{itemize}
\end{frame}

\subsection{With graphic eye candy}

\begin{frame}[negative]
\subsectionpage
\end{frame}

\begin{frame}[t]
{Basic idea}

\heading{The idea} --- put support material (photo or graph) on the
slide next to the frame content.
This is done by
\begin{itemize}
\item specifying an appropriate canvas
\item using an appropriate frame derivative
\end{itemize}

\heading{Good combinations}

```

```

\begin{center}\small
\begin{tabular}{ccc}
\toprule
\bf frame option & \bf graphic on frame
& \bf corresponding frame derivative\\
\midrule
lqgraphic & left quarter & r3qframe \\
rqgraphic & right quarter & l3qframe \\
lhgraphic & left half & rhframe \\
rhgraphic & right half & lhframe \\
thgraphic & top half & bhframe \\
bhgraphic & bottom half & thframe\\
\bottomrule
\end{tabular}
\end{center}

\end{frame}

\begin{l3qframe}[rqgraphic]
{Some Random Title}
{Please, adapt!}

\small
The slide has been typeset as:\\
\begin{codesnippet}[\textwidth]
\bframe[l3q][rqgraphic=\{<load photo here>\}]\}
\ind\{Title\}\}
\ind\{Subtitle\}\}
\ind frame contents\\
\eframe[l3q]
\end{codesnippet}
\smallskip

\subheading{Remarks}
\begin{itemize}
\item Load photo as:\\
\command{includegraphics}[width=0.25\command{paperwidth}, min height=\command{textheight}]
\{image.jpg\}
\item If \texttt{rqgraphic} is specified without argument, a standard photo
is loaded.
\item Note: you can avoid rounding the corner using the
frame option \texttt{noround} (may be useful when not using a photo)
\end{itemize}
\end{l3qframe}

\begin{r3qframe}[lqgraphic,t]
{Some Random Title}
{Please, adapt!}

\small
The slide has been typeset as:\\
\begin{codesnippet}[\textwidth]
\bframe[r3q][lqgraphic=\{<load photo here>\}]\}
\ind\{Title\}\}

```

```

\ind\{Subtitle}\}\}
\ind frame contents\}
\eframe[r3q]
\end{codesnippet}
\smallskip

\subheading{Remarks}
\begin{itemize}
\item Load photo as:\}
\command{includegraphics[width=0.25\command{paperwidth}, min height=\command{textheight}]
\{image.jpg\}}
\item If \texttt{rqgraphic} is specified without argument, a standard photo
is loaded.
\item Note: you can avoid rounding the corner using the
frame option \texttt{noround} (may be useful when not using a photo)
\end{itemize}
\end{r3qframe}

\begin{lhframe}[rhgraphic]
{Some Random Title}

\small
The slide has been typeset as:\}
\begin{codesnippet}[\textwidth]
\bframe[lh][rhgraphic=\{<load photo here>\}\}\}
\ind\{Title\}\}
\ind\{Subtitle\}\}
\ind frame contents\}
\eframe[lh]
\end{codesnippet}
\smallskip

\subheading{Remarks}
\begin{itemize}
\item Load photo as:\}
\command{includegraphics[min
width=0.5\command{paperwidth}, min height=\command{textheight}]
\{image.jpg\}}
\item If \texttt{rqgraphic} is specified without argument, a standard photo
is loaded.
\item Note: avoid rounding the corner using \texttt{noround}
\end{itemize}
\end{lhframe}

\begin{rhframe}[lhgraphic,t]
{Some Random Title}

\small
The slide has been typeset as:\}
\begin{codesnippet}[\textwidth]
\bframe[rh][lhgraphic=\{<load photo here>\}\}\}
\ind\{Title\}\}
\ind\{Subtitle\}\}
\ind frame contents\}

```

```

\eframe[rh]
\end{codesnippet}
\smallskip

\subheading{Remarks}
\begin{itemize}
\item Load photo as:\\
\command{includegraphics}[min
width=0.5\command{paperwidth}, min height=\command{textheight}]
\{image.jpg\}}
\item If \texttt{rqgraphic} is specified without argument, a standard photo
is loaded.
\item Note: avoid rounding the corner using \texttt{noround}
\end{itemize}
\end{rhframe}

\begin{bhframe}[thgraphic,t]
{Some Random Title}{Please, adapt!}
\small
The slide has been typeset as:
\begin{codesnippet}[\textwidth]
\bframe[bh][thgraphic=\{<load photo here>\}]\}
\ind\{Title\}\}
\ind\{Subtitle\}\}
\ind frame contents\}
\eframe[bh]
\end{codesnippet}
\end{bhframe}

\begin{thframe}[bhgraphic,t]
{Some Random Title}
{Please, adapt!}
\small
The slide has been typeset as:
\begin{codesnippet}[\textwidth]
\bframe[th][bhgraphic=\{<load photo here>\}]\}
\ind\{Title\}\}
\ind\{Subtitle\}\}
\ind frame contents\}
\eframe[th]
\end{codesnippet}
\end{thframe}

\section{Intermission slides}

\begin{frame}[negative]
\sectionpage
\end{frame}

\subsection{Standard section slides}

\begin{frame}[negative]
\subsectionpage
\end{frame}

```

```

\begin{frame}[t]
  {Basic idea}

  You can select any of the canvas templates: negative, negativefill,
  graphic, graphicfill and normal, and combine it with:
  \begin{description}
    \item[\command{sectionpage}]
    \item[\command{subsectionpage}]
  \end{description}

  Example:\\[1ex]
  \begin{codesnippet}[0.8\textwidth]
    \bframe[] [negative]\\
    \ind \command{sectionpage}\\
    \eframe\\-\\
    \bframe[] [negative]\\
    \ind \command{subsectionpage}\\
    \eframe
  \end{codesnippet}\\[1ex]
  (this how the previous two slide were generated)
\end{frame}

\subsection{Custom intermission slides}

\begin{frame}[negative]
  \subsectionpage
\end{frame}

\begin{frame}[t]
  {Basic idea}

  If you are a fan of graphic material in slideware, you can use a
  \texttt{graphic} or \texttt{graphicfill} canvas in combination with
  small snippets you put on the slide using\\[1ex]
  \qquad\command{place}[node options] at (x,y) \{<material>\}\\[1ex]
  with
  \begin{itemize}
    \item  $(x,y)=(0,0)$  the bottom left of the slide and  $(1,1)$  the top
      right of the slide
    \item \texttt{node options} any options you want to hand over to the
      tikz node that is used to position the material.
  \end{itemize}
  \medskip

  E.g., the next slide was created using:\\[1ex]
  \begin{codesnippet}[0.8\textwidth]
    \bframe[] [graphic,t]\\
    \ind\command{place} at (0.5,0.5) \{\command{unwterpenicon}[scale=0.8]\}\\
    \eframe
  \end{codesnippet}
  \medskip

  You will have to run \LaTeX{} twice in order for the position to be correct!

```

```
\end{frame}
```

```
\begin{frame}[graphic,t]
  \place at (0.5,0.5) {\uantwerpenicon[scale=0.8]}
\end{frame}
```

```
\begin{frame}[t]
  {Shading photographs}
```

Often you need make a photograph a little bit more opaque in order for the (white) text to readable.

To this end you can use the following command`\[1ex]`
`\quad\command{darken[s]{<material>}}\[1ex]`
 with `s` a value between 0 and 1 to specify the level of darkening.

E.g., the next slide was created using:

```
\begin{codesnippet}[0.9\textwidth]
  \bframe[] [graphicfill={\command{darken}%
    [0.25]\{\command{includegraphics}%
      [scale=0.1,min width=\command{paperwidth},min height=\command{paperheight}]]%
    \{Images/uantwerpen-09.jpg\}\},t]\{\}
  \command{place} [anchor=north east] at (0.95,0.5) \{\}
  \ind\command{uantwerpencallout}\{3\}\{2.5\}\{\}
  \ind\ind\command{bfseries} You cannot be serious!\textbackslash\textbackslash[1ex]\
  \ind\ind John McEnroe\}\}
  \}\}
  \eframe
\end{codesnippet}
\end{frame}
```

```
\begin{frame}[graphicfill={\darken[0.25]%
  {\includegraphics[scale=0.1,min width=\paperwidth,min height=\paperheight]%
    {Images/uantwerpen-09.jpg}}},t]
  \place [anchor=north east] at (0.95,0.5) {
    \uantwerpencallout{3}{2.5}{
      \bfseries You cannot be serious!\[1ex]
      John McEnroe}
  }
\end{frame}
```

```
\begin{frame}[t]
  {Shading photographs locally}
```

You can also choose to shade the local backdrop of the material you put on the side. If you like the `\command{uantwerpencallout}` command of the previous slide, you can give it an optional argument to set the fill opacity of the backdrop behind the text.

E.g., the next slide was created using:

```
\begin{codesnippet}[0.9\textwidth]
  \bframe[] [graphic,t]\
  \ind\command{place} [anchor=north west] at (0.1,0.9) \{\}
  \ind\ind\command{uantwerpencallout}[fill opacity=0.5]\{4.5\}\{2.5\}\{\}
```

```

\ind\ind\ind\command{bfseries} I'll be back!\textbackslash\textbackslash[1ex]\\
\ind\ind\ind Arnold Schwarzenegger\\
\}
\eframe
\end{codesnippet}
\medskip

The \command{uantwerpencallout} command has the following syntax:\\[1ex]
\quad\command{uantwerpencallout}[options]{\width\}{\height\}{\contents\}
\medskip

Remember to run \LaTeX{} twice in order for the position of the
callout to be correct!
\end{frame}

\begin{frame}[graphic,t]
\place [anchor=north west] at (0.1,0.9) {
\uantwerpencallout[fill opacity=0.5]{4.5}{2.5}{
\bfseries I'll be back!\[1ex]
Arnold Schwarzenegger}
}
\end{frame}

\section{Demo of some inner theme parts}

\begin{frame}[negative]
\sectionpage
\end{frame}

\begin{frame}[t]
{Headings}
{on two levels}
You can set headings on two levels, by using
\begin{itemize}
\item\command{heading}\{\}
\item\command{subheading}\{\}
\end{itemize}
\heading{Main subject}~\\
blabla
\subheading{Subtopic 1}~\\
blabla
\subheading{Subtopic 2}~\\
blabla
\heading{Next main subject}~\\
blabla
\end{frame}

\newcommand\listdemo[1][itemize]{
\begin{#1}
\item First level
\begin{#1}
\item Second level
\begin{#1}

```

```

        \item Third level
        \end{#1}
    \end{#1}
\end{#1}
}

\begin{frame}[t]
{Itemize / enumerations}
{Different styles}
Usage:\\
Set them (in your preamble) using: \command{setbeamertemplate}{itemize items}[triangle]\\
The default of the uantwerpen beamer template is set to \texttt{square} to be
similar to our logo.
\medskip

\begin{columns}
\column[T]{0.3\textwidth}
\alert{default}
\setbeamertemplate{itemize items}[default]
\listdemo
\column[T]{0.3\textwidth}
\alert{triangle}
\setbeamertemplate{itemize items}[triangle]
\listdemo
\column[T]{0.3\textwidth}
\alert{circle}
\setbeamertemplate{itemize items}[circle]
\listdemo
\end{columns}~\\
\bigskip

\begin{columns}
\column[T]{0.3\textwidth}
\alert{ball}
\setbeamertemplate{itemize items}[ball]
\listdemo
\column[T]{0.3\textwidth}
\alert{square}
\setbeamertemplate{itemize items}[square]
\listdemo
\column[T]{0.3\textwidth}
\alert{enumeration}
\setbeamertemplate{itemize items}[circle]
\listdemo[enumerate]
\end{columns}
\end{frame}

\section{Advanced material}

\begin{frame}[negative]
\sectionpage
\end{frame}

\begin{frame}[t]

```


{Customizing the template}

If you want to override logos/colors to create a template for your own research group or department:

renew the commands below. The redefinitions must be put just after the `\command{begin\{document\}}` statement.\\

The construction below allows you to put the stuff in a style file that you must load after (!) the `\command{usetheme}` command.\\[1ex]

```
\begin{codesnippet}[0.95\textwidth]
  \command{AtBeginDocument\{}\}
  \ind\command{renewcommand*}\command{logopos}\{your-pos-logo-filename-here\}\}
  \ind\command{renewcommand*}\command{logoneg}\{your-negative-logo-filename-
here\}\}
  \ind\command{renewcommand*}\command{logomonowhite}\{your-mono-logo-filename-
here\}\}
  \ind\command{renewcommand*}\command{iconfile}\{your-icon-filename-here\}\}
  \ind\command{colorlet}\{maincolor\}\{your-favorite-color\}\}
  \ind\command{colorlet}\{sidecolor\}\{your-secondfavorite-color\}\}
  \ind\command{colorlet}\{basecolor\}\{some-solid-color\}\}
  \}
\end{codesnippet}~\\[1ex]
\end{frame}
```

```
\begin{frame}
  {Some genuine advice}
  \small
```

Dear user,

Candy slides are nice for PR, but bad for conveying a message.

Beamer is a tool to typeset technical presentations. Need more animation and eye candy? Use other tools. They are much easier in ruining your audiences' day.

Effective slides are simple slides.\\
Go by cognitive consonance, flirt with cognitive dissonance, but stay away from cognitive cacophony.
This presentation is i.m.ho. a bad one, as it shows the cacophony of possibilities. But hey, you were the one asking for it.

A lot of effort has gone into this template. I hope you like it. If you have good suggestions, e-mail me. If you have questions, I might even help you.

Cheers!

Walter Daems\\
(March 2021)

```
\end{frame}
```

```
\end{document}
</bmrug>
```

7.2 Implementation

7.2.1 Main beamer theme

```
1844 \*bmr>
1845 %      Copyright 2021 by Walter Daems <walter.daems@uantwerpen.be>
1846 %
1847 %      This file may be distributed and/or modified
1848 %
1849 %      1. under the LaTeX Project Public License and/or
1850 %      2. under the GNU Public License.
1851 %
1852 %      See the file doc/licenses/LICENSE for more details.
1853
1854 \newif\if@nofonts
1855 \@nofontsfalse
1856 \DeclareOption{nofonts}{\@nofontstrue}
1857
1858 \input{uantwerpencommonoptions.clo}
1859
1860 \ProcessOptions
1861
1862 \RequirePackage{uantwerpencolorlogoscheme}
1863
1864 \AtBeginDocument{
1865   \def\appropriatelogo{\logopos}
1866   \def\appropriateslidenumber{%
1867     \usebeamercolor{pageno in head/foot}%
1868     \insertframenumber/\inserttotalframenumber}%
1869 }
1870
1871 \mode<presentation>
1872
1873 \RequirePackage{tikz}
1874 \RequirePackage{graphicx}
1875 \RequirePackage[export]{adjustbox}
1876 \RequirePackage{environ}
1877
1878 \setbeamersize{
1879   text margin left=.8cm,
1880   text margin right=.8cm
1881 }
1882
1883 \usecolortheme{uantwerpen}
1884 \usefonttheme{uantwerpen}
1885 \useinnertheme{uantwerpen}
1886 \useoutertheme{uantwerpen}
1887
1888 \setbeamertemplate{navigation symbols}{}
1889 \setbeamertemplate{blocks}[rounded][shadow=true]
1890
```

```

1891 \mode
1892 <all>
1893 </bmr>

```

7.2.2 Beamer color theme

```

1894 (*bmrcolor)
1895 %      Copyright 2021 by Walter Daems <walter.daems@uantwerpen.be>
1896 %
1897 %      This file may be distributed and/or modified
1898 %
1899 %      1. under the LaTeX Project Public License and/or
1900 %      2. under the GNU Public License.
1901 %
1902 %      See the file doc/licenses/LICENSE for more details.
1903
1904 \mode<presentation>
1905
1906 \RequirePackage{uantwerpencolorlogoscheme}
1907
1908 %% define main color
1909 \setbeamercolor{palette primary}{fg=maincolor}
1910 \setbeamercolor{palette secondary}{fg=sidecolor}
1911 \setbeamercolor{palette tertiary}{fg=uauaside}
1912 \setbeamercolor{palette quaternary}{fg=uauamain}
1913
1914 \setbeamercolor{normal text}{fg=basecolor}
1915 \setbeamercolor{inverse normal text}{fg=white!95!maincolor}
1916 \setbeamercolor{alerted text}{fg=uauamain}
1917 \setbeamercolor{example text}{}
1918
1919 \setbeamercolor{heading}{fg=basecolor}
1920 \setbeamercolor{subheading}{fg=basecolor}
1921 \setbeamercolor{inverse heading}{fg=white}
1922 \setbeamercolor{inverse subheading}{fg=white!75!maincolor}
1923
1924 \setbeamercolor{block body}{bg=black!4}
1925 \setbeamercolor{block title}{bg=black!8}
1926
1927 \setbeamercolor{itemize item}{parent=normal text}
1928 \setbeamercolor{enumerate item}{parent=normal text}
1929 \setbeamercolor{itemize subitem}{parent=normal text}
1930 \setbeamercolor{enumerate subitem}{parent=normal text}
1931 \setbeamercolor{itemize subsubitem}{parent=normal text}
1932 \setbeamercolor{enumerate subsubitem}{parent=normal text}
1933
1934 \setbeamercolor{frametitle}{fg=maincolor}
1935 \setbeamercolor{framesubtitle}{fg=sidecolor}
1936 \setbeamercolor{inverse frametitle}{fg=white}
1937 \setbeamercolor{inverse framesubtitle}{fg=white!80!maincolor}
1938
1939 \setbeamercolor{title in title page}{fg=maincolor}
1940 \setbeamercolor{subtitle in title page}{fg=sidecolor}
1941 \setbeamercolor{author in title page}{fg=maincolor}

```

```

1942 \setbeamercolor{date in title page}{fg=sidecolor}
1943 \setbeamercolor{inverse title in title page}{fg=white}
1944 \setbeamercolor{inverse subtitle in title page}{fg=white!75!maincolor}
1945 \setbeamercolor{inverse author in title page}{fg=white}
1946 \setbeamercolor{inverse date in title page}{fg=white!75!maincolor}
1947
1948 \setbeamercolor{pageno in head/foot}{fg=basecolor}
1949 \setbeamercolor{inverse pageno in head/foot}{fg=white}
1950
1951 \setbeamercolor{section in toc}{fg=basecolor}
1952 \setbeamercolor{subsection in toc}{fg=basecolor}
1953 \setbeamercolor{section number projected}{fg=white,bg=basecolor}
1954 \setbeamercolor{subsection number projected}{fg=white,bg=basecolor}
1955
1956 \setbeamercolor{section title}{fg=maincolor}
1957 \setbeamercolor{section name}{fg=maincolor}
1958 \setbeamercolor{inverse section title}{fg=white}
1959 \setbeamercolor{inverse section name}{fg=white}
1960
1961 \setbeamercolor{subsection title}{fg=sidecolor}
1962 \setbeamercolor{subsection name}{fg=sidecolor}
1963 \setbeamercolor{inverse subsection title}{fg=white!75!maincolor}
1964 \setbeamercolor{inverse subsection name}{fg=white!75!maincolor}
1965 \mode
1966 <all>
1967 </bmrcolor>

```

7.2.3 Beamer font theme

```

1968 (*bmrfont)
1969 %      Copyright 2021 by Walter Daems
1970 %
1971 %      This file may be distributed and/or modified
1972 %
1973 %      1. under the LaTeX Project Public License and/or
1974 %      2. under the GNU Public License.
1975 %
1976 %      See the file doc/licenses/LICENSE for more details.
1977
1978 \usetikzlibrary{calc}
1979
1980 \if@nofonts
1981 \else
1982 \RequirePackage{iftex}
1983 % Uncomment the following line if in MiKTeX you get the error
1984 % message that \ifluatex is already defined.
1985 % You first option is to update all your packages both in user as in
1986 % admin mode to fix your setup.
1987 % Your second option is to avoid the warning uncommenting the
1988 % following line:
1989 % \let\ifluatex\relax
1990 \iftutex
1991 \usepackage{cmbright}
1992 \usefonttheme{serif}

```

```

1993 \usepackage{fontspec}
1994 \setmainfont{Calibri}
1995 \usepackage{sansmathaccent}
1996 \fi
1997 \fi
1998 \usepackage{bm}
1999
2000 \mode<presentation>
2001
2002 \setbeamerfont{normal text}{} % ignored currently
2003 \setbeamerfont{alerted text}{}
2004 \setbeamerfont{example text}{}
2005
2006 \setbeamerfont{structure}{}
2007 \setbeamerfont{tiny structure}{size=\tiny}
2008
2009 \setbeamerfont{title}{size=\large,parent=structure}
2010 \setbeamerfont{title in head/foot}{}
2011 \setbeamerfont{title in sidebar}{size=\tiny}
2012
2013 \setbeamerfont{pageno in head/foot}{size=\tiny}
2014
2015 \setbeamerfont{subtitle}{size=\small,parent=title}
2016
2017 \setbeamerfont{author}{}
2018 \setbeamerfont{author in head/foot}{}
2019 \setbeamerfont{author in sidebar}{size=\tiny}
2020
2021 \setbeamerfont{date}{}
2022 \setbeamerfont{date in head/foot}{}
2023 \setbeamerfont{date in sidebar}{}
2024
2025 \setbeamerfont{part name}{size=\LARGE}
2026 \setbeamerfont{part title}{size=\LARGE,parent=title}
2027
2028 \setbeamerfont{section name}{size=\Large}
2029 \setbeamerfont{section title}{size=\Large,parent=title}
2030
2031 \setbeamerfont{section in toc}{parent=structure}
2032 \setbeamerfont{section in toc shaded}{parent=section in toc}
2033 \setbeamerfont{section in head/foot}{}
2034 \setbeamerfont{section in sidebar}{size=\tiny}
2035 \setbeamerfont{section number projected}
2036 {size=\small,parent={section in toc,projected text}}
2037
2038 \setbeamerfont{subsection name}{size=\large}
2039 \setbeamerfont{subsection title}{size=\large,parent=title}
2040
2041 \setbeamerfont{subsection in toc}{}
2042 \setbeamerfont{subsection in toc shaded}{parent=subsection in toc}
2043 \setbeamerfont{subsection in head/foot}{}
2044 \setbeamerfont{subsection in sidebar}{}
2045
2046 \setbeamerfont{subsubsection in toc}{size=\footnotesize}

```

```

2047 \setbeamerfont{subsubsection in toc shaded}{parent=subsubsection in toc}
2048 \setbeamerfont{subsubsection in head/foot}{}
2049 \setbeamerfont{subsubsection in sidebar}{}
2050
2051 \setbeamerfont{headline}{parent={tiny structure}}
2052 \setbeamerfont{footline}{parent={tiny structure}}
2053
2054 \setbeamerfont{frametitle}
2055   {parent=structure,size=\renewcommand*{\baselinestretch}{0.85}\LARGE\bfseries}
2056 \setbeamerfont{framesubtitle}{parent=frametitle,size=\normalsize\bfseries}
2057
2058 \setbeamerfont{caption}{size=\small}
2059 \setbeamerfont{caption name}{parent={structure,caption}}
2060
2061 \setbeamerfont{button}{size=\tiny}
2062
2063 \setbeamerfont{block body}{size=\scriptsize}
2064 \setbeamerfont{block body alerted}{parent={block body}}
2065 \setbeamerfont{block body example}{parent={block body}}
2066 \setbeamerfont{block title}{size=\small,parent={structure,block body}}
2067 \setbeamerfont{block title alerted}{parent={block title,alerted text}}
2068 \setbeamerfont{block title example}{parent={block title,example text}}
2069
2070 \setbeamerfont{item}{parent=structure}
2071 \setbeamerfont{subitem}{parent=item}
2072 \setbeamerfont{subsubitem}{parent=subitem}
2073
2074 \setbeamerfont{item projected}{size=\tiny,parent={item,projected text}}
2075 \setbeamerfont{subitem projected}{parent=item projected}
2076 \setbeamerfont{subsubitem projected}{parent=subitem projected}
2077
2078 \setbeamerfont{itemize item}{parent=item}
2079 \setbeamerfont{itemize subitem}{parent=subitem}
2080 \setbeamerfont{itemize subsubitem}{parent=subsubitem}
2081
2082 \setbeamerfont{enumerate item}{parent=item}
2083 \setbeamerfont{enumerate subitem}{parent=subitem}
2084 \setbeamerfont{enumerate subsubitem}{parent=subsubitem}
2085
2086 \setbeamerfont{itemize/enumerate body}{}
2087 \setbeamerfont{itemize/enumerate subbody}{size=\small}
2088 \setbeamerfont{itemize/enumerate subsubbody}{size=\footnotesize}
2089
2090 \setbeamerfont{description item}{parent=item}
2091
2092 \setbeamerfont{projected text}{parent={tiny structure}}
2093
2094 \setbeamerfont{abstract}{size=\small}
2095 \setbeamerfont{abstract title}{parent={abstract,structure},size=\normalsize}
2096
2097 \setbeamerfont{verse}{family=\rmfamily,shape=\itshape}
2098
2099 \setbeamerfont{quotation}{shape=\itshape}
2100 \setbeamerfont{quote}{parent=quotation}

```

```

2101
2102 \setbeamerfont{note page}{size=\small}
2103
2104 \mode
2105 <all>
2106 \bmrfont

```

7.2.4 Beamer inner theme

```

2107 (*bmrinner)
2108 % Copyright 2021 by Walter Daems <walter.daems@uantwerpen.be>
2109 %
2110 % This file may be distributed and/or modified
2111 %
2112 % 1. under the LaTeX Project Public License and/or
2113 % 2. under the GNU Public License.
2114 %
2115 % See the file doc/licenses/LICENSE for more details.
2116
2117 \mode<presentation>
2118
2119 \setlength\parskip{0.5\baselineskip}
2120 \setlength\parindent{0em}
2121
2122 % use square (can also be circle or ball
2123 \setbeamertemplate{sections/subsections in toc}[square]
2124 \setbeamertemplate{itemize items}[square]
2125
2126 %\setbeamertemplate{description item}[align left]
2127
2128 \newif\if@noround
2129 \@noroundfalse
2130
2131 \newcommand*\uantwerpenleftshape[3][ ]{
2132   \newcommand\mycradius{0.05*(\getlength{\paperheight}-1.6)}%
2133   \coordinate (bl) at #2;
2134   \coordinate (tr) at #3;
2135   \if@noround
2136     \path[#1] (bl) rectangle (tr);
2137   \else
2138     \path[#1] (bl|-tr) -- (tr) -- (bl|-tr) -- ($ (bl)+(\mycradius,0)$)
2139     arc(-90:-180:\mycradius) -- cycle;
2140   \fi
2141 }
2142 \newcommand*\uantwerpenrightshape[3][ ]{
2143   \newcommand\mycradius{0.05*(\getlength{\paperheight}-1.6)}%
2144   \coordinate (bl) at #2;
2145   \coordinate (tr) at #3;
2146   \if@noround
2147     \path[#1] (bl) rectangle (tr);
2148   \else
2149     \path[#1] (bl|-tr) -- (tr) -- ($ (bl|-tr)+(0,\mycradius)$)
2150     arc(0:-90:\mycradius) -- (bl) -- cycle;
2151   \fi

```

```

2152 }
2153
2154 \newcommand*\darken[2][0.5]{%
2155   \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2156     \node (a) {#2};
2157     \fill[fill=black,opacity=#1] (a.south west) rectangle (a.north east);
2158   \end{tikzpicture}
2159 }
2160
2161 \newcommand\uantwerpencallout[4][]{
2162   \begin{tikzpicture}
2163     \uantwerpenleftshape[fill=black,fill opacity=0.0,text opacity=1,text=white,#1]{({-
2164       #2/2},{-#3/2})}{({#2/2},{#3/2})}
2165     \node[align=left,anchor=center] at (0,0) { \callout\  #4 };
2166   \end{tikzpicture}
2167 }
2168 \newcommand\callout[1][scale=0.70711]{
2169   \begin{tikzpicture}[#1]
2170     \fill[maincolor] (0.4,0) -- (0.5,0) -- (0.75,-0.15) -- (0.75,0) --
2171     (0.9,0) arc(-90:0:0.1) -- (1,0.65) arc(0:90:0.1) -- (0.1,0.75) arc
2172     (90:180:0.1) -- (0,0.1) arc(-180:-90:0.1) -- cycle;
2173     \foreach \x in {0.35,0.7} {
2174       \begin{scope}[shift={(\x,0.425)},scale=0.25]
2175         \fill[white] (0,0) circle[radius=0.5];
2176         \fill[white] (0.5,0) arc(0:-90:1) --
2177         (-0.5,-0.725) arc(-90:0:0.725) -- cycle;
2178       \end{scope}
2179     }
2180   \end{tikzpicture}
2181 }
2182
2183 \newcommand*\uantwerpenicon[1][scale=1]{
2184   \includegraphics[#1]{\iconfile}
2185 }
2186
2187 \newcommand\heading[1]{\par{\usebeamercolor{\maybeinverse heading}\color{fg}{\small\bfseries #
2188 \newcommand\subheading[1]{\par{
2189   \usebeamercolor{\maybeinverse
2190     subheading}\color{fg}{\footnotesize\it\bfseries #1~}}}
2191
2192 \mode
2193 <all>
2194 \bmrinner>

```

7.2.5 Beamer outer theme

```

2195 (*bmrouter)
2196 % Copyright 2021 by Walter Daems <walter.daems@uantwerpen.be>
2197 %
2198 % This file may be distributed and/or modified
2199 %
2200 % 1. under the LaTeX Project Public License and/or
2201 % 2. under the GNU Public License.

```



```

2202 %
2203 % See the file doc/licenses/LICENSE for more details.
2204
2205 \mode<presentation>
2206
2207 \newcommand*\getlength[1]{\strip@pt#1/28.45274}
2208 \newcommand*\pw{\getlength{\paperwidth}}%
2209 \newcommand*\ph{\getlength{\paperheight}}%
2210
2211 \newif\if@rhtext
2212 \@rhtextfalse
2213 \newif\if@lhtext
2214 \@lhtextfalse
2215 \newif\if@rqtext
2216 \@rqtextfalse
2217 \newif\if@lqtext
2218 \@lqtextfalse
2219 \newif\if@bhtext
2220 \@bhtextfalse
2221 \gdef\maybeinverse{}
2222
2223 \define@key{beamerframe}{noround}[true]{
2224   \expandafter\csname @noround#1\endcsname
2225 }
2226
2227 \define@key{beamerframe}{normal}[true]{
2228   \setbeamertemplate{title page}[main]
2229   \setbeamertemplate{section page}[main]%
2230   \setbeamertemplate{subsection page}[main]%
2231   \setbeamertemplate{background canvas}[normal]
2232   \gdef\maybeinverse{}
2233 }
2234
2235 \mode<handout|trans>
2236
2237 \define@key{beamerframe}{negativefill}[true]{
2238 }
2239
2240 \define@key{beamerframe}{negative}[true]{
2241 }
2242
2243 \mode
2244 <all>
2245
2246 \mode<beamer|second>
2247
2248 \define@key{beamerframe}{negativefill}[true]{
2249   \gdef\maybeinverse{inverse}%
2250   \usebeamercolor[fg]{\maybeinverse normal text}%
2251   \setbeamertemplate{title page}[negativefill]
2252   \setbeamertemplate{section page}[negative]%
2253   \setbeamertemplate{subsection page}[negative]%
2254   \setbeamertemplate{background canvas}[negativefill]%
2255 }

```

```

2256
2257 \define@key{beamerframe}{negative}[true]{
2258   \gdef\maybeinverse{inverse}%
2259   \usebeamercolor[fg]{\maybeinverse normal text}%
2260   \setbeamertemplate{title page}[negative]
2261   \setbeamertemplate{section page}[negative]%
2262   \setbeamertemplate{subsection page}[negative]%
2263   \setbeamertemplate{background canvas}[negative]%
2264 }
2265
2266 \mode
2267 <all>
2268
2269 \define@key{beamerframe}{graphicfill}[{\includegraphics[scale=0.1,min
2270   width=\paperwidth,min height=\paperheight]{Images/uantwerpen-01.jpg}}]{
2271   \gdef\maybeinverse{inverse}%
2272   \usebeamercolor[fg]{\maybeinverse normal text}%
2273   \setbeamertemplate{background canvas}[graphicfill]{#1}
2274 }
2275
2276 \define@key{beamerframe}{graphic}[{\includegraphics[scale=0.1,min
2277   width=\textwidth,min height=\textheight]{Images/uantwerpen-02.jpg}}]{
2278   \gdef\maybeinverse{inverse}%
2279   \usebeamercolor[fg]{\maybeinverse normal text}%
2280   \setbeamertemplate{background canvas}[graphic]{#1}
2281 }
2282
2283 \define@key{beamerframe}{lhgraphic}
2284 [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2285   height=\textheight]{Images/uantwerpen-03.jpg}}]{
2286   \gdef\maybeinverse{}%
2287   \setbeamertemplate{background canvas}[lhgraphic]{#1}
2288   \@rhtexttrue
2289 }
2290
2291 \define@key{beamerframe}{lqgraphic}
2292 [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2293   height=\textheight]{Images/uantwerpen-04.jpg}}]{
2294   \gdef\maybeinverse{}%
2295   \setbeamertemplate{background canvas}[lqgraphic]{#1}
2296   \@rqtexttrue
2297 }
2298
2299 \define@key{beamerframe}{rhgraphic}
2300 [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2301   height=\textheight]{Images/uantwerpen-05.jpg}}]{
2302   \gdef\maybeinverse{}%
2303   \setbeamertemplate{background canvas}[rhgraphic]{#1}
2304   \@lhtexttrue
2305 }
2306
2307 \define@key{beamerframe}{rqgraphic}
2308 [{\includegraphics[scale=0.5,min width=0.5\paperwidth,min
2309   height=\textheight]{Images/uantwerpen-05.jpg}}]{

```

```

2310 \gdef\maybeinverse{}%
2311 \setbeamertemplate{background canvas}[rqgraphic]{#1}
2312 \qltexttrue
2313 }
2314
2315 \define@key{beamerframe}{thgraphic}
2316 [{\includegraphics[scale=0.5,min width=\paperwidth,min
2317   height=0.5\textheight]{Images/uantwerpen-06.jpg}}]{
2318 \gdef\maybeinverse{}%
2319 \setbeamertemplate{background canvas}[thgraphic]{#1}
2320 \bhtexttrue
2321 }
2322
2323 \define@key{beamerframe}{bhgraphic}
2324 [{\includegraphics[scale=0.5,min width=\paperwidth,min
2325   height=0.5\textheight]{Images/uantwerpen-07.jpg}}]{
2326 \gdef\maybeinverse{}%
2327 \setbeamertemplate{background canvas}[bhgraphic]{#1}
2328 }
2329
2330 \BeforeBeginEnvironment{frame}{%
2331 \gdef\maybeinverse{}%
2332 \setbeamertemplate{title page}[main]%
2333 \setbeamertemplate{section page}[main]%
2334 \setbeamertemplate{subsection page}[main]%
2335 \setbeamertemplate{background canvas}[normal]%
2336 \usebeamercolor[fg]{normal text}%
2337 }
2338
2339 % The following does not work as \end{frame} is never executed by
2340 % beamer!
2341 % \AtEndEnvironment{frame}{\gdef\maybeinverse{}}
2342
2343 \NewEnviron{rhframe}[3][[]]{%
2344 \begin{frame}[#1]{#2}{#3}
2345 \begin{minipage}[t]{0.525\textwidth}
2346 ~
2347 \end{minipage}
2348 \begin{minipage}[t]{0.465\textwidth}
2349 \BODY
2350 \end{minipage}
2351 \end{frame}
2352 }
2353
2354 \NewEnviron{r3qframe}[3][[]]{%
2355 \begin{frame}[#1]{#2}{#3}
2356 \begin{minipage}[t]{0.23\textwidth}
2357 ~
2358 \end{minipage}
2359 \begin{minipage}[t]{0.76\textwidth}
2360 \BODY
2361 \end{minipage}
2362 \end{frame}
2363 }

```

```

2364
2365 \NewEnviron{lhframe}[3][]{%
2366   \begin{frame}[#1]{#2}{#3}
2367     \begin{minipage}[t]{0.465\textwidth}
2368       \BODY
2369     \end{minipage}
2370     \begin{minipage}[t]{0.525\textwidth}
2371       ~
2372     \end{minipage}
2373   \end{frame}
2374 }
2375
2376 \NewEnviron{l3qframe}[3][]{%
2377   \begin{frame}[#1]{#2}{#3}
2378     \begin{minipage}[t]{0.77\textwidth}
2379       \BODY
2380     \end{minipage}
2381     \begin{minipage}[t]{0.22\textwidth}
2382       ~
2383     \end{minipage}
2384   \end{frame}
2385 }
2386
2387 \NewEnviron{bhframe}[3][]{%
2388   \begin{frame}[#1]{#2}{#3}
2389     \BODY
2390   \end{frame}
2391 }
2392
2393 \NewEnviron{thframe}[3][]{%
2394   \begin{frame}[#1]{#2}{#3}
2395     \BODY
2396   \end{frame}
2397 }
2398
2399 %%%%%%%%%%%
2400 % Order:
2401 % 1. option is executed
2402 % 2. frametitle is typeset
2403 % 3. canvas is typeset
2404 % 4. frame is typeset
2405 %%%%%%%%%%%
2406
2407 \def\ps@uantwerpen@titlepage{%
2408   \setbeamercolor{title in title page}{parent=palette primary}
2409   \setbeamertemplate{footline}[empty]
2410   \@nameuse{ps@uantwerpen}
2411 }
2412
2413 \defbeamertemplate*{background canvas}{negativefill}[1]
2414 {%
2415   \gdef\appropriatelogo{\logomonowhite}%
2416   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2417     \insertframenumbers/\inserttotalframenumbers}%

```

```

2418 \color{maincolor}\vrule width\paperwidth height\paperheight
2419 }
2420
2421 \defbeamertemplate*{background canvas}{negative}[1]
2422 {%
2423 \gdef\appropriatelogo{\logopos}%
2424 \gdef\appropriateslidenumber{}%
2425 \begin{tikzpicture}
2426 \clip (0,0) rectangle (\pw,\ph);
2427 \untwerpenleftshape[fill=maincolor]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
2428 \end{tikzpicture}
2429 }
2430
2431 \defbeamertemplate*{background canvas}{graphicfill}[1]
2432 {%
2433 \gdef\appropriatelogo{\logoneg}%
2434 \gdef\appropriateslidenumber{}%
2435 \begin{tikzpicture}
2436 \clip (0,0) rectangle (\pw,\ph);
2437 \node[align=center] at (0.5*\pw,0.5*\ph) {#1};
2438 \end{tikzpicture}%
2439 }
2440
2441 \defbeamertemplate*{background canvas}{graphic}[1]
2442 {%
2443 \gdef\appropriatelogo{\logopos}%
2444 \gdef\appropriateslidenumber{}%
2445 \begin{tikzpicture}
2446 \clip (0,0) rectangle (\pw,\ph);
2447 \begin{scope}
2448 \untwerpenleftshape[clip]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
2449 \node[align=center] at (0.5*\pw,0.5*\ph) {#1};
2450 \end{scope}
2451 \end{tikzpicture}%
2452 }
2453
2454 \defbeamertemplate*{background canvas}{lhgraphic}[1]
2455 {%
2456 \gdef\maybeinverse{}%
2457 \gdef\appropriatelogo{\logopos}%
2458 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2459 \insertframenumber/\inserttotalframenumber}%
2460 \pgfmathsetmacro\dx{0.5*\pw-1.2}%
2461 \pgfmathsetmacro\dy{\ph-1.6}%
2462 \begin{tikzpicture}
2463 \clip (0,0) rectangle (\pw,\ph);
2464 \begin{scope}
2465 \untwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
2466 \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
2467 \end{scope}
2468 \end{tikzpicture}
2469 \@tempswatrue
2470 }
2471

```

```

2472 \defbeamertemplate*{background canvas}{lqgraphic}[1]
2473 {%
2474   \gdef\maybeinverse{}%
2475   \gdef\appropriatelogo{\logopos}%
2476   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2477     \insertframenumber/\inserttotalframenumber}%
2478   \pgfmathsetmacro\dx{0.25*\pw-1.2}%
2479   \pgfmathsetmacro\dy{\ph-1.6}%
2480   \begin{tikzpicture}
2481     \clip (0,0) rectangle (\pw,\ph);
2482     \begin{scope}
2483       \untwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
2484       \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy)
2485         {#1};
2486     \end{scope}
2487   \end{tikzpicture}
2488   \@tempswatrue
2489 }
2490
2491 \defbeamertemplate*{background canvas}{rhgraphic}[1]
2492 {%
2493   \gdef\maybeinverse{}%
2494   \gdef\appropriatelogo{\logopos}%
2495   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2496     \insertframenumber/\inserttotalframenumber}%
2497   \pgfmathsetmacro\dx{0.5*\pw-1.2}%
2498   \pgfmathsetmacro\dy{\ph-1.6}%
2499   \begin{tikzpicture}
2500     \clip (0,0) rectangle (\pw,\ph);
2501     \begin{scope}[shift={(0.5*\pw,0)}]
2502       \untwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
2503       \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
2504     \end{scope}
2505   \end{tikzpicture}
2506   \@tempswatrue
2507 }
2508
2509 \defbeamertemplate*{background canvas}{rqgraphic}[1]
2510 {%
2511   \gdef\maybeinverse{}%
2512   \gdef\appropriatelogo{\logopos}%
2513   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2514     \insertframenumber/\inserttotalframenumber}%
2515   \pgfmathsetmacro\dx{0.25*\pw-1.2}%
2516   \pgfmathsetmacro\dy{\ph-1.6}%
2517   \begin{tikzpicture}
2518     \clip (0,0) rectangle (\pw,\ph);
2519     \begin{scope}[shift={(0.75*\pw,0)}]
2520       \untwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
2521       \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
2522     \end{scope}
2523   \end{tikzpicture}
2524   \@tempswatrue
2525 }

```

```

2526
2527 \defbeamertemplate*{background canvas}{thgraphic}[1]
2528 {%
2529   \gdef\maybeinverse{}%
2530   \gdef\appropriatelogo{\logopos}%
2531   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2532     \insertframenumber/\inserttotalframenumber}%
2533   \pgfmathsetmacro\dx{\pw-1.6}%
2534   \pgfmathsetmacro\dy{0.5*\ph-0.8}%
2535   \begin{tikzpicture}
2536     \clip (0,0) rectangle (\pw,\ph);
2537     \begin{scope}[shift={(0,0.5*\ph)}]
2538       \untwerpenleftshape[clip] {(0.8,0)}{(0.8+\dx,\dy)}
2539       \node[align=center] at (0.8+0.5*\dx,0.5*\dy) {#1};
2540     \end{scope}
2541   \end{tikzpicture}
2542   \@tempwatrue
2543 }
2544
2545 \defbeamertemplate*{background canvas}{bhgraphic}[1]
2546 {%
2547   \gdef\maybeinverse{}%
2548   \gdef\appropriatelogo{\logopos}%
2549   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2550     \insertframenumber/\inserttotalframenumber}%
2551   \pgfmathsetmacro\dx{\pw-1.6}%
2552   \pgfmathsetmacro\dy{0.5*\ph-0.8}%
2553   \begin{tikzpicture}
2554     \clip (0,0) rectangle (\pw,\ph);
2555     \begin{scope}[shift={(0,0.8)}]
2556       \untwerpenleftshape[clip] {(0.8,0)}{(0.8+\dx,\dy)}
2557       \node[align=center] at (0.8+0.5*\dx,0.5*\dy) {#1};
2558     \end{scope}
2559   \end{tikzpicture}
2560   \@tempwatrue
2561 }
2562
2563
2564 \defbeamertemplate*{background canvas}{normal}
2565 {%
2566   \gdef\maybeinverse{}%
2567   \gdef\appropriatelogo{\logopos}%
2568   \gdef\appropriateslidenumber{\usebeamercolor{pageno in
2569     head/foot}\insertframenumber/\inserttotalframenumber}%
2570 }
2571
2572
2573 \defbeamertemplate*{title page}{main}[1] []
2574 {%
2575   \thispagestyle{untwerpen@titlepage}%
2576   \begin{tikzpicture}
2577     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
2578     \node[anchor=center] at (0.5*\textwidth,0.75*\ph)
2579       {\includegraphics[height=.9\logounitheight]{\logopos}};

```

```

2580 \node[
2581 text width=0.98\textwidth,
2582 text=basecolor,
2583 align=center] at (0.5*\textwidth,0.5*\ph) {
2584 \begin{beamercolorbox}[wd=\textwidth,center]{title in title page}
2585 \LARGE\bfseries\inserttitle\[\1ex]
2586 \usebeamercolor[fg]{subtitle in title page}
2587 \color{fg}\large\bfseries\insertsubtitle
2588 \end{beamercolorbox}
2589 };
2590 \node[
2591 text width=0.98\textwidth,
2592 color=basecolor,
2593 align=center] at (0.5*\textwidth,0.25*\ph) {
2594 \begin{beamercolorbox}[wd=\textwidth,center]{author in title page}
2595 \large\bfseries\insertauthor
2596 \end{beamercolorbox}
2597 };
2598 \node[
2599 text width=0.98\textwidth,
2600 color=basecolor,
2601 align=center] at (0.5*\textwidth,0.15*\ph) {
2602 \begin{beamercolorbox}[wd=\textwidth,center]{date in title page}
2603 \normalsize\bfseries\insertdate
2604 \end{beamercolorbox}
2605 };
2606 \end{tikzpicture}
2607 }
2608
2609 \defbeamertemplate*{title page}{negative}[1][
2610 {
2611 \begin{tikzpicture}
2612 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
2613 \node[
2614 text width=0.98\textwidth,
2615 align=center] at (0.5*\textwidth,0.5*\ph) {
2616 \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
2617 \LARGE\bfseries\inserttitle\[\1ex]
2618 \usebeamercolor[fg]{\maybeinverse subtitle in title page}
2619 \color{fg}\large\bfseries\insertsubtitle
2620 \end{beamercolorbox}
2621 };
2622 \node[
2623 text width=0.98\textwidth,
2624 align=center,] at (0.5*\textwidth,0.25*\ph) {
2625 \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
2626 \large\bfseries\insertauthor
2627 \end{beamercolorbox}
2628 };
2629 \node[
2630 text width=0.98\textwidth,
2631 color=basecolor,
2632 align=center] at (0.5*\textwidth,0.15*\ph) {
2633 \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}

```



```

2634         \normalsize\bfseries\insertdate
2635     \end{beamercolorbox}
2636 };
2637 \end{tikzpicture}
2638 }
2639
2640 \defbeamertemplate*{title page}{negativefill}[1] []
2641 {
2642     \thispagestyle{uantwerpen@titlepage}
2643     \begin{tikzpicture}
2644         \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
2645         \node[anchor=center] at (0.5*\textwidth,0.75*\ph)
2646         {\includegraphics[height=.9\logounitheight]{\logomonowhite}};
2647         \node[
2648             draw,rectangle,
2649             text width=0.98\textwidth,
2650             color=maincolor,
2651             align=center] at (0.5*\textwidth,0.5*\ph) {
2652             \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
2653                 \LARGE\bfseries\inserttitle\\[1ex]
2654                 \usebeamercolor{fg}{inverse subtitle in title page}
2655                 \color{fg}\large\bfseries\insertsubtitle
2656             \end{beamercolorbox}
2657         };
2658         \node[
2659             text width=0.98\textwidth,
2660             color=maincolor,
2661             align=center] at (0.5*\textwidth,0.25*\ph) {
2662             \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
2663                 \large\bfseries\insertauthor
2664             \end{beamercolorbox}
2665         };
2666         \node[
2667             text width=0.98\textwidth,
2668             color=basecolor,
2669             align=center] at (0.5*\textwidth,0.15*\ph) {
2670             \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
2671                 \normalsize\bfseries\insertdate
2672             \end{beamercolorbox}
2673         };
2674     \end{tikzpicture}
2675 }
2676
2677 \defbeamertemplate*{section page}{main}[1] []
2678 {%
2679     \begin{tikzpicture}
2680         \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
2681         \node[
2682             text width=0.98\textwidth,
2683             text=basecolor,
2684             align=center] at (0.5*\textwidth,0.55*\ph) {
2685             \begin{beamercolorbox}[wd=\textwidth,center]{section title}
2686                 \Large\bfseries\insertsectionnumber.\~\insertsection
2687             \end{beamercolorbox}

```

```

2688     };
2689     \end{tikzpicture}
2690 }
2691
2692 \defbeamertemplate*{subsection page}{main}[1] []
2693 {%
2694     \begin{tikzpicture}
2695         \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
2696         \node[
2697             text width=0.98\textwidth,
2698             text=basecolor,
2699             align=center] at (0.5*\textwidth,0.55*\ph) {
2700             \begin{beamercolorbox}[wd=\textwidth,center]{section title}
2701                 \Large\bfseries\insertsectionnumber.\sim\insertsection
2702             \end{beamercolorbox}
2703         };
2704         \node[
2705             text width=0.98\textwidth,
2706             text=basecolor,
2707             align=center] at (0.5*\textwidth,0.45*\ph) {
2708             \begin{beamercolorbox}[wd=\textwidth,center]{subsection title}
2709                 \large\bfseries\insertsubsection
2710             \end{beamercolorbox}
2711         };
2712     \end{tikzpicture}
2713 }
2714
2715 \defbeamertemplate*{section page}{negative}[1] []
2716 {
2717     \begin{tikzpicture}
2718         \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
2719         \node[
2720             text width=0.98\textwidth,
2721             text=basecolor,
2722             align=center] at (0.5*\textwidth,0.55*\ph) {
2723             \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
2724                 \Large\bfseries\insertsectionnumber.\sim\insertsection
2725             \end{beamercolorbox}
2726         };
2727     \end{tikzpicture}
2728 }
2729
2730 \defbeamertemplate*{subsection page}{negative}[1] []
2731 {
2732     \begin{tikzpicture}
2733         \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
2734         \node[
2735             text width=0.98\textwidth,
2736             text=basecolor,
2737             align=center] at (0.5*\textwidth,0.55*\ph) {
2738             \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
2739                 \Large\bfseries\insertsectionnumber.\sim\insertsection
2740             \end{beamercolorbox}
2741         };

```

```

2742 \node[
2743 text width=0.98\textwidth,
2744 text=basecolor,
2745 align=center] at (0.5*\textwidth,0.45*\ph) {
2746 \begin{beamercolorbox}[wd=\textwidth,center]{inverse subsection title}
2747 \large\bfseries\insertsubsection
2748 \end{beamercolorbox}
2749 };
2750 \end{tikzpicture}
2751 }
2752
2753 \defbeamertemplate*{footline}{empty}
2754 {
2755 }
2756
2757 \defbeamertemplate*{footline}{normal}
2758 {%
2759 \leavevmode%
2760 \hbox{\begin{beamercolorbox}
2761 [wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,left,leftskip=.8cm
2762 plus1fill]{author in head/foot}%
2763 \includegraphics[height=0.35\logounitheight]{\appropriatelogo}
2764 \hskip0pt plus 1filll ~
2765 \end{beamercolorbox}}%
2766 \begin{beamercolorbox}[wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,
2767 right,rightskip=.8cm plus1fill]{\maybeinverse pageno in head/foot}%
2768 \usebeamerfont{pageno in head/foot}~\hskip0pt plus 1filll
2769 \appropriateslidenumber
2770 \end{beamercolorbox}}%
2771 \vskip0pt%
2772 }
2773
2774 \defbeamertemplate*{frametitle}{empty}
2775 {
2776 }
2777
2778 \defbeamertemplate*{frametitle}{normal}
2779 {%
2780 \vskip0.75cm%
2781 \if@rhtext%
2782 \@tempdima=0.5\textwidth%
2783 \@tempdimb=0.5\textwidth%
2784 \advance\@tempdima by0.5\beamer@leftmargin%
2785 \advance\@tempdimb by-0.5\beamer@leftmargin%
2786 \else%
2787 \if@rqtext%
2788 \@tempdima=0.23\textwidth%
2789 \@tempdimb=0.77\textwidth%
2790 \else%
2791 \if@lhtext%
2792 \@tempdima=0em%
2793 \@tempdimb=0.5\textwidth%
2794 \advance\@tempdimb by-0.5\beamer@leftmargin%
2795 \else%

```

```

2796 \if@lqtext%
2797 \@tempdima=0em%
2798 \@tempdimb=0.77\textwidth%
2799 \else%
2800 \if@bhtext%
2801 \@tempdima=0em%
2802 \@tempdimb=\textwidth%
2803 \vskip0.5\textheight%
2804 \else%
2805 \@tempdima=0em%
2806 \@tempdimb=\textwidth%
2807 \fi%
2808 \fi%
2809 \fi%
2810 \fi%
2811 \fi%
2812 \hskip\@tempdima%
2813 \begin{beamercolorbox}[wd=\@tempdimb]{\maybeinverse frametitle}%
2814 \usebeamerfont{frametitle}\insertframetitle\@{0.5ex}%
2815 \ifx\insertframesubtitle\@empty%
2816 {\usebeamerfont{framesubtitle}%
2817 \usebeamercolor[fg]{\maybeinverse framesubtitle}~\strut\par}%
2818 \vskip-1ex%
2819 \else%
2820 {\usebeamerfont{framesubtitle}%
2821 \usebeamercolor[fg]{\maybeinverse framesubtitle}%
2822 \insertframesubtitle\strut\par}%
2823 \fi%
2824 \if@tempswa\else\vskip-.3cm\fi set inside beamercolorbox... evil here...
2825 \end{beamercolorbox}%
2826 }
2827
2828 \newdimen\xlleft
2829 \newdimen\ylleft
2830 \newdimen\xupright
2831 \newdimen\yupright
2832 \newdimen\xcurrent
2833 \newdimen\ycurrent
2834 \newcommand*\extractlleft[1]{\path (#1);\pgfgetlastxy{\xlleft}{\ylleft};}
2835 \newcommand*\extractupright[1]{\path (#1);\pgfgetlastxy{\xupright}{\yupright};}
2836 \newcommand*\extractcurrent[1]{\path (#1);\pgfgetlastxy{\xcurrent}{\ycurrent};}
2837
2838 \DeclareRobustCommand\place{\@ifnextchar[{\@place}{\@place[align=left] }}
2839 \def\@place[#1] at (#2,#3)#4{
2840 \begin{tikzpicture}[overlay,remember picture]
2841 \extractlleft{$(current page.south west)$}
2842 \extractupright{$(current page.north east)$}
2843 \node[#1] at
2844 ({\xlleft*(1-#2)+\xupright*#2},{\ylleft*(1-#3)+\yupright*#3}) {#4};
2845 \end{tikzpicture}
2846 }
2847
2848 \mode
2849 <all>

```

2850 </bmrouter>

Change History

v1.0	General: Consolidated uacoursetext class and uamasterthesis class 1 Added option qr 34 Added option titlepagenoartwork 34 Added option titlepagetableonly 34	General: Added diploma codes for Faculty of Applied Economics . 1 Added diploma code documentation 10
v1.1	<code>\diploma</code> : Fixed typo on programme's name (e-umlaut) 46 General: Small bugfixes and 'filled' option 1 Added option user documentation 8 Made raggedright conditional on option 'filled', because it can't be undone 54	v1.7 <code>\maketitle</code> : Embedded babel translations of keywords into title page 56, 60 General: Added babel translations of elements of master's thesis title page 1 Added babel tags of elements of master's thesis title page . . . 38
v1.2	General: Added lmodern package and increased headheight to 13.7pt to please Fancyhdr . . . 1 Added lmodern package to please MikTeX 37 Increased headheight to please Fancyhdr 54	v1.8 <code>\makefinalpage</code> : Inserted blank one but last page 59 <code>\maketitle</code> : Allowed for empty senderrole 67 <code>\signature</code> : Added signature . . . 50 General: Corrected minor typographic mistakes, added signature and solved problems with shell escape 1 Added missing packages ifmtarg and shellesc 37 Allowed for empty senderrole . 68
v1.3	<code>\makefinalpage</code> : Changed eso-pic for tikz 59, 61 <code>\maketitle</code> : Changed eso-pic for tikz 60 General: Minor bugfixes, abandonment of a few packages, font freedom 1 Abandoned use of cmbright - no more font dictatorship for theses and courses 37 Added inclusion of background package 37	v1.81 General: Bugfixes for release v1.8 . 1 Apparently shellesc is still missing from quite a number of installations, therefore, conditional loading 37
v1.4	General: Implemented uantwerpenletter class 1 Implemented letter class 34	v1.9 General: Integrated uantwerpenexam class into package 1 Added etoolbox for convenience reasons 37 Implemented uantwerpenexam class 34
v1.5	<code>\maketitle</code> : Implemented new footer 67 General: Replaced bottom arcs in footer of letter by official PDF versions 1	v2.0 <code>\makefinalpage</code> : Implemented final page 64, 67 <code>\maketitle</code> : Implemented title page 62 General: Implemented uantwerpenphdthesis class into package 1 Implemented uantwerpenphdthesis class . . . 34
v1.6	<code>\diploma</code> : Added diploma codes . 46	

Removed package ifmtarg because unreliable	37	General: Added option for diploma without specialization for EM	1
Updated diploma code documentation to incorporate PhD degrees	10	v2.5 \depot : Made the specification of a depot number optional	47
v2.1 \engdut : Increased intercolumn spacing for engdut	72	\insertsolutionspagepartial : Corrected for 'one page too early' in solutionspagepartial . .	73
\extrainfo : Changed default to empty	52	\maketitle : Corrected formatting in case of absent ISBN or depot number	62
\maketitle : Corrected information page (p4) jury spacing	62	\programme : Shortened 'voorbereidingsprogramma' and 'schakelprogramma' tags .	45
\subtitle : Added subtitle to phd text	41	\publisher : changed publisher to universitas in default	42
Ensured that subtitle is really optional by adding default space value	41	General: changed publisher to universitas in example	14
General: Bugfix release after promotion event on research day	1	v3.0 \facultyacronym : Changed REC in RE, TEW in BE and WET in WE (according to official naming scheme)	41
Added appropriate \appendix command	55	General: Adapted to the new house style of UAntwerpen and added a beamer template	1
Allow for setting the multiple choice mark symbol	72	Added iftex	37
Corrected erroneous line breaking	72	v3.1 General: Renamed generic images to be unique for TexLive distribution	1
Corrected spacing in title + exampart	68	v3.2 General: Small bugfixes (e.g., frame numbering instead of page numbering)	1
v2.2 General: Improved visibility of chapter numbers by adding a white outline	1	v4.0 \diploma : Discontinued: removed all diploma codes	46
Added white chapter number outline	55	\facultyacronym : This function is now obsolete	41
Corrected spacing	55	General: Last update of house style (phdthesis coursetext and bamathesis), added uantwerpenreport class, improvements based on use feedback and major rework to benefit from expl3, removed all diploma codes to ease maintainability	1
v2.3 \diploma : Added diploma level . .	46	Removed diploma codes, as too many faculties are requesting to maintain them	10
\extrainfo : The command \extrainfo now allows for an extra (optional) first argument 'firstpage'	52	Removed option qr again	34
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