The `uantwerpendocs` classes*

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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` classes[1] 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.

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

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*Thanks to Paul Levrie for testing and proofreading.

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

> 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 6.1.

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 `graphbox` 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 LaTeX3 to prepare for a package that is easier to maintain. However, the LaTeX3 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 (XeLaTeX, LuaLaTeX, …) from the major TeX-distributions (TeTeX, TexLive, MikTeX). However, using an old LaTeX + dvips setup or PDFLaTeX, is likely to get you into font problems. Advice: ditch the route via dvi and abandon the old PDFLaTeX compiler. If you experience other problems, please inform the author.

5 Organization of this docstrip documentation

In the first part, we will describe the classes intended to produce paper documents:

- coursetext class
- bachelor and master thesis classes
- phd thesis class
- letter class
- report class
- exam class

In the second part, we will describe the uantwerpen beamer theme that can be used to make PDF slides.

Part I. The paper classes

6 Usage

6.1 Basic Usage

As of v4.06 of this document, this section has been stripped from contents, as it turns out that documentation in a working example is more appreciated by the users of this package. Therefore, check out the examples in section **??**.

A good modus operandi is to start from one of the examples and to adapt them gradually for your needs.

6.2 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
fbd	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).

bare [phdthesis]

For the `phdthesis` class, this option removes the title page and the back page from the file, such that you can give a 'bare' version to your printshop.

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 `\raggedright` cannot be undone. The `filled` option prevents the `\raggedright` from being issued. However, if you care about the typographic readability of your text, you shouldn't use this option.

nofoldline [letter]

This option suppresses the fold line on a letter.

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 bare version of your PhD text for the Nieuwe Mediadienst: `twoside`, `openright`, `bare` and (optionally) `filled`

- to make a report: `twoside`, `openright` and (optionally) `filled`

6.3 The macros explained

6.3.1 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 [phdthesis] (mandatory)
Mention the full date, i.e. day month and year of your public defense

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

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

\doi [phdthesis] (optional)
Specify the correct doi URL you obtained for your document. It will be typeset in your colofon.

\embargofull [phdthesis] (optional)
Generates the correct embargo message in your colofon. Adds the word 'CONFIDENTIAL' to your title page.

\embargotemp [phdthesis] (optional)
This macro takes two arguments, an embargo starting date and an embargo ending

date. Generates the correct temporary embargo message in your colofon. Adds the word 'CONFIDENTIAL' to your title page.

`\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` [bamathesis,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 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. Students of FTI and FWET, can use the `\bamadegree` command instead.

`\bamadoctype` [bamadocument] (mandatory)
This allows to set the nature of the thesis. The proper values of the argument are listed below. Don't use this macro when you are using the `\bamadegree` macro (see below), unless you want to change the document type to 'project'.

This data comes from uantwerpendocs-doctype.data

argument	
nl-ba	Bachelorproef
nl-ma	Masterproef
nl-pr	Projectverslag
en-ba	Bachelor's thesis
en-ma	Master's thesis
en-pr	Project report

`\bamadegree` [bamathesis] (mandatory)
This allows to specify the official degree through an abbreviation. Using this abbreviation

This data comes from uantwerpendocs-degree.data

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argument	degree
ti-nl-ba-bk	Bachelor of Science in de industriële wetenschappen: bouwkunde
ti-nl-ba-ch	Bachelor of Science in de industriële wetenschappen: chemie
ti-nl-ba-em	Bachelor of Science in de industriële wetenschappen: elektromechanica
ti-nl-ba-ei	Bachelor of Science in de industriële wetenschappen: elektronica-ICT
ti-en-ba-bk	Bachelor of Science in de industriële wetenschappen: bouwkunde
ti-en-ba-ch	Bachelor of Science in de industriële wetenschappen: chemie
ti-en-ba-em	Bachelor of Science in de industriële wetenschappen: elektromechanica
ti-en-ba-ei	Bachelor of Science in de industriële wetenschappen: elektronica-ICT
ti-nl-ma-bk	Master of Science in de industriële wetenschappen: bouwkunde
ti-nl-ma-bch	Master of Science in de industriële wetenschappen: biochemie
ti-nl-ma-ch	Master of Science in de industriële wetenschappen: chemie
ti-nl-ma-em	Master of Science in de industriële wetenschappen: elektromechanica
ti-nl-ma-ei	Master of Science in de industriële wetenschappen: elektronica-ICT
ti-en-ma-ei	Master of Science in Electronics and ICT Engineering Technology
ti-nl-eduma-wtstem	Educatieve master of Science in de wetenschappen en technologie: STEM
we-nl-eduma-wtstem	Educatieve master of Science in de wetenschappen en technologie: STEM
we-nl-eduma-wtbchbt	Educatieve master of Science in de wetenschappen en technologie: biochemie en biotechnologie
we-nl-eduma-wtbio	Educatieve master of Science in de wetenschappen en technologie: biologie
we-nl-eduma-wtch	Educatieve master of Science in de wetenschappen en technologie: chemie
we-nl-eduma-wtfy	Educatieve master of Science in de wetenschappen en technologie: fysica
we-nl-eduma-wtinf	Educatieve master of Science in de wetenschappen en technologie: informatica
we-nl-eduma-wtwi	Educatieve master of Science in de wetenschappen en technologie: wiskunde
we-nl-ba-bircg	Bachelor of Science in de bio-ingenieurswetenschappen: cel- en genbiotechnologie

we-nl-ba-birvt	Bachelor of Science in de bio-ingenieurswetenschappen: chemie en voedingstechnologie
we-nl-ba-birlb	Bachelor of Science in de bio-ingenieurswetenschappen: land- en bosbeheer
we-nl-ba-birmt	Bachelor of Science in de bio-ingenieurswetenschappen: milieutechnologie
we-nl-ba-bio	Bachelor of Science in de biologie
we-nl-ma-bioeg	Master of Science in de biologie: evolutie en gedragsbiologie
we-en-ma-biocr	Master of Science in biology: biodiversity, conservation and restoration
we-en-ma-biogcb	Master of Science in biology: global change biology
we-en-ma-biomb	Master of Science in molecular biology
we-nl-ba-ch	Bachelor of Science in de chemie
we-en-ma-ch	Master of Science in chemistry
we-nl-ba-inf	Bachelor of Science in de informatica
we-en-ma-infcn	Master of Science in computer science: computer networks
we-en-ma-infdsai	Master of Science in computer science: data science and artificial intelligence
we-en-ma-infse	Master of Science in computer science: software engineering
we-nl-ma-infcn	Master of Science in de informatica: computernetwerken
we-nl-ma-infdsai	Master of Science in de informatica: data science en artificiële intelligentie
we-nl-ma-infse	Master of Science in de informatica: software engineering
we-nl-ba-fy	Bachelor of Science in de fysica
we-nl-ma-fy	Master of Science in de fysica
we-en-ma-fy	Master of Science in physics
we-nl-ba-wi	Master of Science in wiskunde
we-nl-ma-wifw	Master of Science in wiskunde: fundamentele wiskunde
we-nl-ma-wiftw	Master of Science in wiskunde: financiële en toegepaste wiskunde

\programme [coursetext] (discontinued)
\publisher This macro is no longer used. Use \degree{} instead. [coursetext] (mandatory)
This macro sets the publisher information of the document. It is printed on the front page. It defaults to the repographic service of campus Groenenborger, one of the standard printing services of Universiteit Antwerpen. Separate the different fields (name, addres, 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 advized. 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.

6.3.2 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.

\closeletter [letter] (optiontal)
Close the letter (with the closing greetings and underwriting) such that the letter can be continued if desired with attachments. This macro generates a \textbackslash{}clearpage. The default is not to use this macro. It is automatically invoked at the end of the letter if you did not do so.

\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 LaTeX) 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

You can specify multiple email addresses by using the command multiple times.

\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. You can specify multiple fax addresses by using the command multiple times.

\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. You can specify multiple mobile phone numbers by using the command multiple times.

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

\phone [letter] (optional)
Phone number of the sending person. See also \email. You can specify multiple phone numbers by using the command multiple times.

\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.

\to [letter] (mandatory)
Name of the addressee. Newlines are allowed. Preferably name and role are split over two lines.

\toaddress [letter] (optional)
Address of the addressee. Newlines are allowed. The address should fit on max. 3 lines.

\toorganization [letter] (optional)
Name of the organization that employs the addressee.

\unit [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.

6.3.3 Macros for the exam class

\author [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)'.

\academicyear [exam] (mandatory)
Use this macro to specify the academic year in full, i.e. in the form `XXXX-YYYY`.

\course [exam] (mandatory)
see description of `\course` macro on page 6.

\degree [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 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.

\examdate specifies the date of the exam. We recommend the YYYY-MM-DD format, but you are free to chose your own coding scheme for dates. We advize against using UNIX epoch time, to avoid problems in the first semester exams in 2038.

\examgroupnumber [exam]
mentions the group number (may be empty)

\examlength specifies the length of the exam in a unit of time, e.g. '4h'

\exampart [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').

\extrainfo 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 ot he 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, preferrable in the format 'HHhMM', e.g. '08h30'.

6.4 Examples

Below you can find an example for every class. They also serve as their quickstart documentation.

Remember to

- use modern compiler: no pdfLaTeX, use LuaLaTeX instead!

- compile 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.

In many of the classes, you need to specify a faculyt option. The available faculty options are listed in a table on page .

6.4.1 uantwerpencoursetext

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

% ti          specifies the department, change to the letter combination of
%             your department
% a4paper     specifies the paper format
% 11pt        sets the font size to 11pt, i.e. a good average
% oneside     if you want a one-sided document, change to twoside if you
%             want a recto verso document
% openright   causes you chapters to start on a right-hand page when
%             your document is twosided
% cameraready removes the graphical elements from the title and final
%             page, as they will be typeset by universitas (in color)
% filled      causes left and right filling (which - by the way - is
%             not helpful for easy reading; remove for a left-filled
%             document)w

% make paragraphs indent
\setlength\parindent{1in}
% provide a space of 1ex bewteen paragraphs
\setlength\parskip{0ex}

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[english,dutch]{babel}
% You can then use \selectlanguage{english} to start a piece of text
% in english, and \selectlanguage{dutch} to start a piece of text in
% dutch. This will cause the correct hypernation patterns to be
% loaded.
% To keep a consistent naming of the chapters (a.o.) make sure you
% switch back to the document's overall language!

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

% set title, subtitle and author
\title{Z\'agen, zoeken en zuchten}
\subtitle{Cursusnota's}
\author{Walter Daems en Paul Levrie}

% better keep track of the different versions (and the corresponding
% publication year) of your course
\courseversion{1.3}
\versionyear{2023}

% mention who lectures the course (can be different from the author)
\lecturer{Zoltan Zo\"ekers}
\lecturer{Siana Sigh}
\lecturer{Zeger de Z\'ager}

% you can use two ways to specify a dgree:
```

```
% (1) explicitly with text
%     e.g. \degree{Master of Science in de industri\"ele wetenschappen:
%     elektronica-ICT}
% (2) by specifying the correct code, to fetch the text from a table
%     with correct degree mentions
\bamadegree{ti-en-ma-ei}
% you can even add multiple degrees and mix the two ways!

% you can specify multiple courses:
% - first  argument is the course number
% - second argument is the course name
\course{2023FTIZZZ}{5-Zoekmachines in een zaagperspectief}
\course{2045FTIIIII}{6-Zaagmachines in \'e\'en zuchtperspectief}

% for which academic year the course is intended
\academicyear{2023-2024}

% leave this as is if you use Universitas as print shop
\publisher{Universitas Cursusdienst |
  Prinsesstraat 16 |
  2000 Antwerpen |
  T +32 3 233 23 73 |
  E info@cursusdienst.be}

% universitas will provide you with a code, that you can provide on
% your PDF copy (if you distribute any to your students. If not, just omit.
\publishercode{C11111102}

% you can specify additional copyright notices on the copyright page
% (i.e. the back of the title page)
\copyrightnotices{
  The graphics in this document have been typeset using \textttt{TikZ}.\\
  This document has been \TeX-ed on a GNU/Linux workstation.
}

\begin{document}

% creates the title page, remove if you don't want any
\maketitle

% causes the first pages to be roman numbered
\frontmatter

% sets the table of contents (automatically for you)
\tableofcontents

% changes the numbering system to arabic and restart from 1
\mainmatter

% a non-numbered chapter
\chapter*{Inleiding}

% some automatically generated bogus text: remove in your copy
\kant[1]
```

```
% a first numbered chapter
\chapter{Onzin voor dummies}

% a first numbered section
\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]

\clearpage

\subsection{Begint echt vervelend te worden}

\kant[7-10]

\chapter{Besluit}

% changes the chapter numbering to letters and uses 'Appendix' or
% 'Bijlage' (in dutch) as chapter name.
% !! do not use \backmatter before \appendix: it is broken!
\appendix

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

% typeset the final page with some graphic material on it
\makefinalpage

\end{document}
</ct-example>
```

6.4.2 `uantwerpenbamathesis`

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

```
% ti          specifies the department, change to the letter combination of
%             your department - currently only ti (for FTI) and we
%             for (FWET) are supported
% a4paper     specifies the paper format
% 11pt        sets the font size to 11pt, i.e. a good average
% twoside     if you want a two-sided document, change to oneside if you
%             want a recto only document
% openright   causes you chapters to start on a right-hand page when
%             your document is twosided
% for two-sided theses, specify 'twoside' and 'openright' as options
% for one-sided theses, specify 'oneside' and 'openany' as options

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[english]{babel}

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

% this package allows to generate a PDF with clickable links
\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% you must load the hyperref package yourself, to allow putting it
% in the correct order with the other packages you load!

% as an example - loading some fonts, feel free to change
\usepackage{mathptmx}
\iftutex
% Just an example of font-scheme: this is in no way a recommended font
% scheme!
\usepackage{fontspec}
\setmainfont
[UprightFont = *,
 BoldFont = *b,
 ItalicFont = *i,
 BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

% Use this package if you need to provide a twocolumn summary at the
% start of your document.
\usepackage{multicol}

% specify your degree
\bamadegree{ti-en-ba-em}
% You can specify your degree manually here, using \degree{}
% if you don't trust 'the system'

% set title, subtitle and author
\title{Minimax optimisatie voor performantie-
  ruimtemodellering} %% either don't split titles, or do so with hyphen
                      %% and a newline
```

```latex
\subtitle{Deze subtitel mag je weglaten}
\author{Bert Bibber}

% you can specify multiple supervisors, cosupervisors and external supervisors
% in Dutch: promotoren, copromotoren (dagelijkse begeleiders) en
% bedrijfspromotoren
\supervisor{prof. dr. ir. P. Kumulus}{UAntwerpen}
\supervisor{prof. dr. ir. E. Snuffel}{UAntwerpen}
\cosupervisor{ing. P. Pienter}{Cosys, UAntwerpen}
\extsupervisor{prof. dr. H. Warwinkel}{TNT-Bang, N.V.}

% set the academic year: keep the spaces around the dash!
\academicyear{2023 - 2024}

% you can specify a company logo
% \companylogo{\includegraphics[width=4.5cm,height=2.5cm,keepaspectratio]
%                {companylogo.jpg}}

\begin{document}

% creates the title page, remove if you don't want any
\maketitle

% causes the first pages to be roman numbered
\frontmatter

% sets the table of contents (automatically for you)
\tableofcontents

% changes the numbering system to arabic and restart from 1
\mainmatter

% Use this template if you need to provide a twocolumn summary at the
% start of your document. Remove it if you don't need it.
\pagestyle{empty}
\thispagestyle{empty}
\begin{multicols}{2}
  [
  \begin{center}
    \textbf{
      \Large Samenvatting\\[1ex]
      \@title~\\[1ex]
      \large \@subtitle\\[0.5ex]}
    \@author
  \end{center}
  ]

  \kant[11]

  \kant[12]

  \kant [13]

  \kant [14]
```

18

```
  \kant [15]

\end{multicols}
\pagestyle{fancy}

% An even better suggestion is to create your twocolumns summary as a
% separate document (using a dedicated paper-writing class e.g. the
% IEEEtran class) and load the individual pdf pages using the pdfpages
% package (https://ctan.org/pkg/pdfpages).

% a first numbered chapter
\chapter{Inleiding}

% some fancy typeset text (see the PDF yourself)
\insettext{Bene vixit qui bene latuit!}

% some dummy text: remove in your copy
\kant[1]

% a second numbered chapter
\chapter{Onderzoeksvraag}

\insetquote{As any dedicated reader can clearly see, the Ideal of
  practical reason is a representation of
  as far as I know, the things themselves, a vast overexaggeration.}

% a first numbered section
\section{Het gebeuren}

\kant[2]

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

\kant[3]

\kant[4]

\kant[5]

\kant[6]

\kant[7]

\kant[8]

\kant[9]

\kant[10]


\chapter{Literatuurstudie}
```

```
\chapter{Theoretische achtergrond}

\chapter{Eigen realisatie}

\chapter{Besluit}

% changes the chapter numbering to letters and uses 'Appendix' or
% 'Bijlage' (in dutch) as chapter name.
% !! do not use \backmatter before \appendix: it is broken!
\appendix

\chapter{Symbolen}
\chapter{Referentielijst}

\end{document}
</bmt-example>
```

6.4.3 `uantwerpenphdthesis`

Dutch

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

% ti          specifies the department, change to the letter combination of
%             your department
% 10pt        sets the font size, 10pt is ok for a phd manuscript
% twoside     if you want a two-sided document, change to oneside if you
%             want a recto only document
% openright   causes you chapters to start on a right-hand page when
%             your document is twosided
% for two-sided theses, specify 'twoside' and 'openright' as options
% for one-sided theses, specify 'oneside' and 'openany' as options
% filled      causes left and right filling (which - by the way - is
%             not helpful for easy reading; remove for a left-filled
%             document)
% cameraready  this option will change the paper format from B4 to A4
%             and trigger alignment marks and cut-lines for you
%             printing service - check with them whether they want
%             this.
% bare        this option removes title page and final page. Many
%             print services required this format and they will
%             typeset the title page and final page for you.

% You may want to use common fonts
\usepackage{mathptmx}
\iftutex
% Just an example of font-scheme: this is in no way a recommended font
% scheme!
\usepackage{cmbright}
\usepackage{fontspec}
```

```
\setmainfont
[UprightFont = *,
 BoldFont = *b,
 ItalicFont = *i,
 BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[dutch]{babel} %% or english if your text is in English

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

% this package allows to generate a PDF with clickable links
\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% you must load the hyperref package yourself, to allow putting it
% in the correct order with the other packages you load!

% set title, subtitle and author and his/her/their affilliation and
% address
\title{Harmonische Signaalanalyse\\met Lineaire
  Operatoren}
\subtitle{Waarom moeten titels van doctoraatsthesissen 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
}

% specify your supervisors and their affiliation
\supervisor{prof. dr. W. Vlaams}{Universiteit Antwerpen, Belgi\"e}
\supervisor{prof. dr. J. Stekker}{Universiteit Antwerpen, Belgi\"e}

% specify the chairman of the jury and his/her/their affiliation
\jurychair{prof. dr. P. Dalinckx}{Universiteit Antwerpen, Belgi\"e}

% specify the memers of the jury and their affiliations
\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}

% specify your degree (manually) and where and when you obtain your degree
\degree{doctor in de Toegepaste Ingenieurswetenschappen}
\defenselocation{Antwerpen}
\defensedate{21 mei 2024}
```

```
% specify a fancy photo for your titlepage (if you don't want a dull one)
\titlepageimage{Images/uantwerpen-keyboard.jpg}

% if your manuscript is under full embargo, give the following command
% \embargofull

% if your manuscript is under a temporary embargo (1, 2 or 5 years),
% please, specify begin and end date of the embargo period as first
% and second argument to the \tempembargo command:
\embargotemp{21 mei 2024}{20 mei 2029}

% some data about your manuscript
% \doi{https://dio.org/10.1000/182} %% only specify one if you obtained one!

\begin{document}

% creates the title page, remove if you don't want any
\maketitle

% causes the first pages to be roman numbered
\frontmatter

% sets the table of contents (automatically for you)
\tableofcontents

% changes the numbering system to arabic and restart from 1
\mainmatter

% a first unnumbered chapter
\chapter*{Inleiding}

% some dummy text, remove in your copy
\kant[1]

% a first numbered chapter
\chapter{Onderzoeksvraag}

% a first numbered section
\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]


% change the chapter numbering to letters and uses 'Appendix' or
% 'Bijlage' (in dutch) as chapter name.
% !! do not use \backmatter before \appendix: it is broken!
\appendix

\chapter{Symbolen}

\chapter{Publicaties}
% Put your bibliography here using BibTeX

% typeset the final page with some graphic material on it
\makefinalpage

\end{document}
</pt-example1>
```

English

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

% ti            specifies the department, change to the letter combination of
%               your department
% 10pt          sets the font size, 10pt is ok for a phd manuscript
% twoside       if you want a two-sided document, change to oneside if you
%               want a recto only document
% openright     causes you chapters to start on a right-hand page when
%               your document is twosided
% for two-sided theses, specify 'twoside' and 'openright' as options
% for one-sided theses, specify 'oneside' and 'openany' as options
% filled        causes left and right filling (which - by the way - is
%               not helpful for easy reading; remove for a left-filled
%               document)
% cameraready   this option will change the paper format from B4 to A4
%               and trigger alignment marks and cut-lines for you
%               printing service - check with them whether they want
%               this.
% bare          this option removes title page and final page. Many
%               print services required this format and they will
%               typeset the title page and final page for you.
```

```
% use some fancy fonts: just an example!
\usepackage{newpxtext}
\usepackage{newpxmath}
\linespread{1.05} % recommended line spreading for pallatino fonts

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[english]{babel} %% or dutch if your text is in Dutch

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

% this package allows to generate a PDF with clickable links
\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% you must load the hyperref package yourself, to allow putting it
% in the correct order with the other packages you load!

% set title, subtitle
\title{Harmonic Signal analysis \\based on Linear Operators}
\subtitle{How did Mindy linearly kill Mork's IC signal analyzer?}

% trigger the generation of a secondary title page in Dutch by
% specifying a \titel (and optionally a \subtitel).
\titel{Harmonische Signaalanalyse\\met behulp van Lineaire
  Operatoren}
\subtitel{Waarom moeten titels van doctoraatsthesissen toch altijd
  lang en onverstaanbaar zijn?}

% specify the author and his/her/their affilliation and address
\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
}

% specify your supervisors and their affiliation
\supervisor{prof. dr. W. Vlaams}{University of Antwerp, Belgium}
\supervisor{prof. dr. J. Stekker}{University of Antwerp, Belgium}

% specify the chairman of the jury and his/her/their affiliation
\jurychair{prof. dr. P. Dalinckx}{University of Antwerp, Belgium}

% specify the memers of the jury and their affiliations
\jurymember{prof. dr. J. Dezerooder}{University of Antwerp, Belgium}
\jurymember{prof. dr. P. De Tollenaere}{Flanders Make, Belgium}
\jurymember{prof. dr. M. Byr}{IMEC, The Netherlands}

% specify your degree (manually) and where and when you obtain your degree
\degree{doctor in Applied Engineering}
\defenselocation{Antwerp}
\defensedate{May 24, 2024}
```

```latex
% specify a fancy photo for your titlepage (if you don't want a dull one)
\titlepageimage{Images/uantwerpen-keyboard.jpg}

% if your manuscript is under full embargo, give the following command
\embargofull

% if your manuscript is under a temporary embargo (1, 2 or 5 years),
% please, specify begin and end date of the embargo period as first
% and second argument to the \tempembargo command:
% \embargotemp{May 24, 2024}{May 23, 2026}

% some data about your manuscript
% \doi{https://dio.org/10.1000/182} %% only specify one if you obtained one!

\begin{document}

% creates the title page, remove if you don't want any
\maketitle

% causes the first pages to be roman numbered
\frontmatter

% sets the table of contents (automatically for you)
\tableofcontents

% changes the numbering system to arabic and restart from 1
\mainmatter

% a first unnumbered chapter
\chapter*{Introduction}

% some dummy text, remove in your copy
\kant[1]

% a first numbered chapter
\chapter{Research question}

% a first numbered section
\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]

% change the chapter numbering to letters and uses 'Appendix' or
% 'Bijlage' (in dutch) as chapter name.
% !! do not use \backmatter before \appendix: it is broken!
\appendix

\chapter{Symbols}

% Put your bibliography here using BibTeX

% typeset the final page with some graphic material on it
\makefinalpage

\end{document}
</pt-example2>
```

6.4.4 uantwerpenreport

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

% 10pt         sets the font size, 10pt is ok for a phd manuscript
% twoside      if you want a two-sided document, change to oneside if you
%              want a recto only document
% openright    causes you chapters to start on a right-hand page when
%              your document is twosided
% for two-sided theses, specify 'twoside' and 'openright' as options
% for one-sided theses, specify 'oneside' and 'openany' as options
% filled       causes left and right filling (which - by the way - is
%              not helpful for easy reading; remove for a left-filled
%              document)

% You may want to use common fonts
\usepackage{mathptmx}
\iftutex
% Just an example of font-scheme: this is in no way a recommended font
% scheme!
\usepackage{cmbright}
\usepackage{fontspec}
\setmainfont
[UprightFont = *,
 BoldFont = *b,
```

```
 ItalicFont = *i,
 BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[dutch]{babel} %% or english if your text is in Dutch

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

% this package allows to generate a PDF with clickable links
\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% you must load the hyperref package yourself, to allow putting it
% in the correct order with the other packages you load!

% set title, subtitle and author and his/her/their affilliation and
% address
\title{De toepassing van roomijs-derivaten in beton}
\subtitle{Het belang van een smaakvolle architectuur}
\author{Ing. Jan Bouwblauw}
\affiliation{Universiteit Antwerpen | Building Research Group}
\address{Groenenborgerlaan 171, 2020 Antwerpen, Belgi\"e\\
  M: jan.bouwblauw@uantwerpen.be\\
  T: +32 265 00 00
}

% provide some extra data (a mention on the title page on what type of
% report this is)
\extra{Onderzoeksrapport}

% year in which the report appears
\versionyear{2023}

% specify a fancy photo for your titlepage (if you don't want a dull one)
\titlepageimage{Images/uantwerpen-keyboard.jpg}

\begin{document}

% creates the title page, remove if you don't want any
\maketitle

% causes the first pages to be roman numbered
\frontmatter

% sets the table of contents (automatically for you)
\tableofcontents

% changes the numbering system to arabic and restart from 1
\mainmatter
```

```
% a first unnumbered chapter
\chapter*{Inleiding}

% some dummy text, remove in your copy
\kant[1]

% a first numbered chapter
\chapter{Smaken en smaakpapillen}

% a first numbered section
\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]

% change the chapter numbering to letters and uses 'Appendix' or
% 'Bijlage' (in dutch) as chapter name.
% !! do not use \backmatter before \appendix: it is broken!
\appendix

\chapter{Symbolen}

\chapter{Publicaties}
% Put your bibliography here using BibTeX

% typeset the final page with some graphic material on it
\makefinalpage

\end{document}
</rp-example>
```

6.4.5 `uantwerpenletter`

Plain example

```
<*le-example>
\documentclass[ti,a4paper]{uantwerpenletter}

% ti          specifies the department, change to the letter combination of
%             your department
% a4paper     specifies the paper format
% nofoldline  this suppresses the foldline
%
% 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{cmbright}
\usepackage{fontspec}
\setmainfont
[UprightFont = *,
 BoldFont = *b,
 ItalicFont = *i,
 BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[english]{babel}

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

% provide info on who sensd the letter, you can put this in a
% configuration file, see the documentation of the letter class!
\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}

% set a return address - if you want to avoid the infernal anger of
% the UAntwerp internal post service
\returnaddress{FTI - U.301 -- Groenenborgerlaan 171, 2020 Antwerpen, BELGIUM}

% provide some details on who you want to write to
\to{prof. B. Bonette}
```

```
\toorganization{Mumford University}
\toaddress{
  450 Morning Mall\\
  Mumford, DX 94305-2004\\
  USA}

% a proper letter mentions a date of writing and a subject
\date{January 3, 2016}
\subject{Congratulations for online video lectures}

\begin{document}
% This puts all logo's / address / subject where it needs to be
\maketitle

% be polite when starting a letter, and address your audience
\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 dummy paragraphs to illustrate that
% this class can generate multipage letters.
\kant[1-3]

% time to say goodbye
\closing{Kind regards,}

% you might want to insert a signature picture or text:
% \signature{\includegraphics{signature.jpg}}

% mention who receives a copy of this letter if needed
\carboncopy{prof. S. Mariotte, Mumford University}

% specify what extras can be found in the envelope if needed
\enclosed{
  \begin{enumerate}
  \item list of course numbers that are most fequently viewed at
    our university (1pp)
  \item a list of students desiring to take an internship at
    Mumford University (2pp)
  \end{enumerate}
}
\closeletter
\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

% you can put your font setup in the configuration file!
\iftutex
\usepackage{cmbright}
\usepackage{fontspec}
\setmainfont
[UprightFont = *,
 BoldFont = *b,
 ItalicFont = *i,
 BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

% as you probably will always be the sender of your letters,
% put this info in the configuration file too.
\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 as follows:

```
 \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 (most often this search path can be set with an environment variable `TEXINPUTS`).

6.4.6 `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, aks the author to implement this.

Single column

```
<*ex-example1>
\documentclass[ti,a4paper,10pt]{uantwerpenexam}

% ti            specifies the department, change to the letter combination of
%               your department
% a4paper       specifies the paper format
% 10pt          students have good eyes, they still can read 10pt fonts

% select a font you like
\usepackage{newpxtext}
\usepackage{newpxmath}

% this package eases numbering of subquestions
\usepackage{enumitem}

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[dutch]{babel}

% some data about your course and the authors/lecturers
\course{1876FTIDUM}{5-Bistrologie}
\author{Walter Daems}      %% can be omitted if 'lecturers' are sufficient
\lecturer{Walter Daems}

% specify the degree of the program the course fits in
\degree{Bachelor of Science in de industri\"ele wetenschappen -
  elektronica-ICT}

% specify the academic year
\academicyear{2017-2018}

% specify the particular examination form
\exampart{Schriftelijk Examen}

% specify the group
\examgroupnumber{1 (eerste examenkans-inhaal)}

% specify import time-related info about the exam - this will help
% supervisors to hand-out the correct exam copies!
\examdate{2018-01-29}
```

```
\examlength{4h}
\tstart{08h30}
\tend{12h30}

% same for the room(s), you may specify multiple!
\room{G.U.024}
\room{G.U.025}

% instruct your students about important details.
% 'firstpage' puts in on the first page, if omitted the extra info is
% printed on the back of the first page
\extrainfo[firstpage]{
  Belangrijke informatie:\\\par
  Het volledige Onderwijs- en Examenregelement (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) 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.
  \item Volledig \emph{verboden te gebruiken}: alle apparatuur met
    geheugen- of communicatiefunctionaliteit zoals GSM, smartphone,
    smartwatch, muziekspeler, \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!
}

% if you make a copy per student, you can provide a number on the copy
\studentnr{127}

% set the multiple choice symbol you fancy
\setmcsymbol{\bigcirc}


\begin{document}

% set the title page of the exam
\maketitle

% a first question (with an identifier that can help you remember wich
% question it is out of your huge database)
\question{[VLATOP-BISTRO]}
```

```
% give some idea to the student about the importance of the question
\questionweight{3}

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

% a second question
\question{[BECHAMEL]}
\questionweight{7}

Welk van de onderstaande ingredi\"enten hoort niet thuis in
een b\'echamel saus:

% this is how you specify the multiple choice answering options
\mc{Melk}
\mc{Boter}
\mc{Bloem}
\mc{Eieren}
\mc{Suiker}

% you can insert some pages for the studen to write his/her answers
% on.
% a. below the question, in this case for the remaining 2cm on the page
\insertsolutionspagepartial{2}

% b. a full page
\insertsolutionspage{}
\clearpage

% a third questoin
\question{[BISTROCULTURE-1]}
\questionweight{10}

% the option of the enumerate environment is thanks to the enumitem package
\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}

% you can insert some pages for the studen to write his/her answers
% on.
% a. below the question, in this case for the remaining 23cm on the page
\insertsolutionspagepartial{23}

% b. full pages: 3 in this case
\foreach \i in {1,2,3} {
  \insertsolutionspage{}
}

% c. special 'scrap' pages with a watermark on them: two in this case
\foreach \i in {1,2} {
```

```
   \insertsolutionspage{Kladpapier}
}
\end{document}
</ex-example1>
```

Two columns   This might be of use to professors that teach courses in English in a Dutch program, you then can make a bilingual exam. This makes you 100% compliant to the very restrictive Flemish language legislation.

```
<*ex-example2>
\documentclass[ti,a4paper,10pt]{uantwerpenexam}

% ti           specifies the department, change to the letter combination of
%              your department
% a4paper      specifies the paper format
% 10pt         students have good eyes, they still can read 10pt fonts

% select a font you like
\usepackage{newpxtext}
\usepackage{newpxmath}

% this package eases numbering of subquestions
\usepackage{enumitem}

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[dutch,english]{babel}

% some data about your course and the authors/lecturers
\course{1876FTIDUM}{5-Bistrology}
\lecturer{Walter Daems}
\lecturer{Paul Levrie}

% specify the degree of the program the course fits in
\degree{Bachelor of Science in de industri\"ele wetenschappen - elektronica-
ICT}

% specify the academic year
\academicyear{2017-2018}

% specify the particular examination form
\exampart{Written Exam}

% specify the group
\examgroupnumber{1 (eerste examenkans-inhaal)}

% specify import time-related info about the exam - this will help
% supervisors to hand-out the correct exam copies!
\examdate{2018-01-29}
\examlength{4h}
\tstart{08h30}
\tend{12h30}
```

```
% same for the room(s)
\room{G.U.025}
\room{G.U.026}

% instruct your students about important details.
% 'firstpage' puts in on the first page, if omitted the extra info is
% printed on the back of the first page
\extrainfo{
  %% the engdut command allows you to specify a left column in english
  %% and right column in dutch
  %% use multiple engdut-environments to keep the page flow synchronized
  \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 Examenregelement (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}
```

```latex
    \item Volledig \emph{verboden te gebruiken}: alle apparatuur met
      geheugen- of communicatiefunctionaliteit zoals GSM, smartphone,
      smartwatch, muziekspeler, \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
}
```

```
% if you make a copy per student, you can provide a number on the copy
\studentnr{29}

\begin{document}

% set the title page of the exam
\maketitle

% a first question (with an identifier that can help you remember wich
% question it is out of your huge database)
\question{[VLATOP-BISTRO]}

% give some idea to the student about the importance of the question
\questionweight{3}

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

% a second question
\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:
}

% this is how you specify multipel choice answering options in two languages
\engdutmc{Milk}{Melk}
\engdutmc{Butter}{Boter}
\engdutmc{Flower}{Bloem}
\engdutmc{Eggs}{Eieren}
\engdutmc{Sugar}{Suiker}

% you can insert some pages for the studen to write his/her answers
% on.
% a. below the question, in this case for the remaining 20cm on the page
\insertsolutionspagepartial{20}

% b. a full page
\insertsolutionspage{}

\clearpage
```

```
% a third questoin
\question{[BISTROCULTURE-1]}
\questionweight{10}

\engdut{
% the option of the enumerate environment is thanks to the enumitem package
  \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}
}

% you can insert some pages for the studen to write his/her answers
% on.
% a. below the question, in this case for the remaining 22.5cm on the page
\insertsolutionspagepartial{22.5}

% b. full pages: 3 in this case
\foreach \i in {1,2,3} {
  \insertsolutionspage{}
}

% c. special 'scrap' pages with a watermark on them: two in this case
\foreach \i in {1,2} {
  \insertsolutionspage{Scrap/Klad}
}
\end{document}
</ex-example2>
```

7 Implementation of the classes

7.1 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}
```

```latex
5
6 \newcommand*\colormodel{rgb}
7 \newif\if@cmyk
8 \@cmykfalse
9 \DeclareOption{cmyk}{\renewcommand*\colormodel{cmyk}\@cmyktrue}
10 \DeclareOption{rgb}{\renewcommand*\colormodel{rgb}\@cmykfalse}
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⟩
```

7.2 Color scheme

```
111 ⟨*cls⟩
112 \if@cmyk
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 ⟨/cls⟩
```

7.3 Class inheritance

For convenience, we'll derive from the standard LaTeX 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}{\@moderntrue}
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⟩
215 ⟨∗pt⟩
216 \newif\if@bare
217 \DeclareOption{bare}{\@baretrue}
218 ⟨/pt⟩
219 ⟨∗le⟩
220 \newif\if@nofoldline
221 \DeclareOption{nofoldline}{\@nofoldlinetrue}
222 ⟨/le⟩
```

We execute some standard options: We load the `book` class for course texts, reports and PhD theses, and the scrbook class for bachelor and master theses.

```
223 ⟨∗ct | bmt | pt | rp⟩
224 \input{uantwerpencommonoptions.clo}
225 \ExecuteOptions{a4paper,11pt,final,oneside,openright}
226 \ProcessOptions\relax
227 ⟨/ct | bmt | pt | rp⟩
228 ⟨ct | pt | rp⟩\LoadClassWithOptions{book}
229 ⟨bmt⟩\LoadClassWithOptions{scrbook}
230 % We load the |letter| class for letters
231 ⟨∗le⟩
232 \input{uantwerpencommonoptions.clo}
233 \ExecuteOptions{a4paper,10pt,final,oneside,openright}
234 \ProcessOptions
235 \LoadClassWithOptions{letter}
236 \newcommand*\tat{\makeatletter @\makeatother}
237 ⟨/le⟩
238 % We load the |article| class for exams
239 ⟨∗ex⟩
240 \input{uantwerpencommonoptions.clo}
241 \ExecuteOptions{a4paper,twoside,10pt}
242 \ProcessOptions
243 \LoadClassWithOptions{article}
244 ⟨/ex⟩
```

7.4 Modern typesetting

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

```
245 ⟨∗ct | bmt | pt | rp | le | ex⟩
```

```
246 \setlength{\parindent}{0pt}
247 \addtolength{\parskip}{0.75\baselineskip}
248 \setcounter{secnumdepth}{3}
249 ⟨/ct | bmt | pt | rp | le | ex⟩
```

7.5   Auxiliary packages

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

7.5.1   Geometry

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

```
250 ⟨∗ct | rp | ex⟩
251 \RequirePackage[top=2.5cm, bottom=2.5cm, left=2.5cm, right=2.5cm]{geometry}
252 ⟨/ct | rp | ex⟩
253 % Let's follow the instructions by ADS for the (marginal(!) glue provision):
254 ⟨∗pt⟩
255 \RequirePackage[paperwidth=180mm,paperheight=260mm,
256                 top=2.5cm,bottom=2.5cm,left=2.6cm,right=1.8cm,twoside]
257                 {geometry}
258 ⟨/pt⟩
259 % Also, let's follow the office templates for the bachelor's and
260 % master's theses:
261 ⟨∗bmt⟩
262 \RequirePackage[top=2.6cm, bottom=2.5cm, left=3.5cm, right=1.6cm]{geometry}
263 ⟨/bmt⟩
264 % Letters are a little bit different:
265 ⟨∗le⟩
266 \RequirePackage[top=1in, bottom=1in, left=1.34in, right=1in]{geometry}
267 \RequirePackage[normalem]{ulem}
268 ⟨/le⟩
```

7.5.2   Preparing for LaTeX3

Let's make things a bit easier for me.

```
269 ⟨∗ct | bmt | pt | rp | le | ex⟩
270 \RequirePackage{expl3}
271 %\RequirePackage[check-declarations]{expl3} % I use this during debug phase
272 \RequirePackage{xparse}
273 ⟨/ct | bmt | pt | rp | le | ex⟩
```

7.5.3   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.

```
274 ⟨*ct | bmt | pt | rp | le⟩
275 % no more font code
276 ⟨/ct | bmt | pt | rp | le⟩
```

7.5.4 Boilerplate packages

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

```
277 ⟨*ct | bmt | pt | rp | le | ex⟩
278 \RequirePackage{iftex}
279 \RequirePackage{xstring}
280 \RequirePackage{etoolbox}
281 \RequirePackage{ifthen}
282 \IfFileExists{shellesc.sty}{\RequirePackage{shellesc}}{}
283 ⟨/ct | bmt | pt | rp | le | ex⟩
```

7.5.5 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:

```
284 ⟨*ct | bmt | pt | rp | le | ex⟩
285 \RequirePackage{graphicx}
286 \RequirePackage{graphbox}
287 \RequirePackage{soul}
288 \RequirePackage[export]{adjustbox}
289 \RequirePackage{color}
290 \RequirePackage{tikz}
291 \usetikzlibrary{positioning,calc}
292 \RequirePackage{eso-pic}
293 ⟨/ct | bmt | pt | rp | le | ex⟩
294 ⟨*ct | rp⟩
295 \if@copyright
296 \RequirePackage[contents={},color=lightgray,scale=3]{background}
297 \fi
298 ⟨/ct | rp⟩
```

7.5.6 UAntwerpen color and logo scheme

```
299 ⟨*ct | bmt | pt | rp | le | ex⟩
300 \RequirePackage{uantwerpencolorlogoscheme}
301 ⟨/ct | bmt | pt | rp | le | ex⟩
```

7.5.7 Header/Footer

The de-facto standard for headers and footers:

```
302 ⟨*ct | bmt | pt | rp | le | ex⟩
303 \RequirePackage{fancyhdr}
304 ⟨/ct | bmt | pt | rp | le | ex⟩
```

7.6   Colors

```
305 ⟨*ct | bmt | pt | rp | le | ex⟩
306 \definecolor{lightgray}{cmyk}        {0.00,0.00,0.00,0.05}
307 \definecolor{darkgray}{cmyk}         {0.00,0.00,0.00,0.80}
308 \definecolor{watermark}{cmyk}        {0.00,0.00,0.00,0.05}
309 ⟨/ct | bmt | pt | rp | le | ex⟩
```

7.7   Fancy highlighting

Though I'm not keen on highlighting, the style gurus have decided to put highlight-ing in the titles of the bachelor's and master's theses. The macro blow highlights a token sequence using white text on the main color.

```
310 ⟨*bmt⟩
311 \newcommand\@uantwerpendocshl[1]{%
312   \begin{lrbox}{\@tempboxa}#1\end{lrbox}\@uantwerpendocshlbox{\@tempboxa}}
313 \newcommand{\@uantwerpendocshlbox}[1]{%
314   \tikz{%
315     \pgfpathrectangle{\pgfpoint{1pt}{0pt}}{\pgfpoint{\wd #1}{\ht #1}}%
316     \pgfusepath{use as bounding box}%
317     \node[anchor=base
318     west,align=center,fill=maincolor,text=white,outer sep=0pt,inner
319     xsep=5pt, inner ysep=0pt,minimum height=\ht\strutbox+1pt]
320     {\raisebox{1pt}{\strut}\strut\usebox{#1}};
321   }%
322 }
323 ⟨/bmt⟩
```

7.8   Fancy inset texts and quotes

```
324 ⟨*bmt | pt | ct | rp⟩
325 \newcommand\insettext[1]{
326   \textcolor{basecolor}{
327     \begin{tabular}{@{\hskip3ex\textcolor{maincolor}{\vrule width 2.5pt}%
328       \hskip3ex\large\bfseries}p{0.88\textwidth}}
329       \strut #1
330     \end{tabular}
331   }
332 }
333 \newcommand\insetquote[1]{
334   \insettext{
335     \begin{tikzpicture}[scale=0.65]
336       \fill[green!60!black] (0.4,0) -- (0.5,0) -- (0.75,-0.15) -- (0.75,0) --
337       (0.9,0) arc(-90:0:0.1) -- (1,0.65) arc(0:90:0.1) -- (0.1,0.75) arc
338       (90:180:0.1) -- (0,0.1) arc(-180:-90:0.1) -- cycle;
339       \foreach \x in {0.35,0.7} {
340         \begin{scope}[shift={(\x,0.425)},scale=0.25]
```

```
341          \fill[white] (0,0) circle[radius=0.5];
342          \fill[white] (0.5,0) arc(0:-90:1) --
343          (-0.5,-0.725) arc(-90:0:0.725) -- cycle;
344       \end{scope}
345     }
346    \end{tikzpicture}\\
347    #1
348   }
349 }
350 ⟨/bmt | pt | ct | rp⟩
```

7.9 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.

```
351 ⟨*pt⟩
352 \if@cameraready
353 \RequirePackage[cam,center,width=21truecm,height=29.7truecm]{crop}
354 \fi
355 ⟨/pt⟩
```

7.10 Data dictionary and parser

Let's start by defining our dictionary:

```
356 ⟨*ct | bmt | pt | rp | le | ex⟩
357 \ExplSyntaxOn
358 \prop_new:N \g_@@_data_prop
359 ⟨/ct | bmt | pt | rp | le | ex⟩%
```

The dictionary can be accessed using the following document command:

```
360 ⟨*ct | bmt | pt | rp | le | ex⟩
361 \NewDocumentCommand{\uantwerpendocsprop}{m}{
362   \prop_item:Nn \g_@@_data_prop{#1}
363 }
364 \NewDocumentCommand{\uantwerpendocsPROP}{m}{
365   \str_uppercase:f { \prop_item:Nn \g_@@_data_prop{#1} }
366 }
367 ⟨/ct | bmt | pt | rp | le | ex⟩%
```

To this end, we use the following parsing infrastructure:

```
368 ⟨*ct | bmt | pt | rp | le | ex⟩
369 \NewDocumentCommand{\uantwerpendocspropread}{m}{
370   \@@_datareader:n { #1 }
371 }
372 \cs_generate_variant:Nn \prop_gput:Nnn{ Nxx }
```

```
373 \cs_new_nopar:Npn \@@_dataparser:w #1 = #2!! {
374   \tl_set:Nn \l_tmpa_tl {#1}
375   \tl_set:Nn \l_tmpb_tl {#2}
376   \tl_trim_spaces:N \l_tmpa_tl
377   \tl_trim_spaces:N \l_tmpb_tl
378   \prop_gput:Nxx \g_@@_data_prop { \l_tmpa_tl} { \l_tmpb_tl }
379 }
380 ⟨/ct | bmt | pt | rp | le | ex⟩
```

invoked by the following data file reader:

```
381 ⟨*ct | bmt | pt | rp | le | ex⟩
382 \ior_new:N \l_@@_data_ior
383 \cs_new_nopar:Nn \@@_datareader:n {
384   \ior_open:Nn \l_@@_data_ior { uantwerpendocs-#1.data }
385   \ior_str_map_inline:Nn \l_@@_data_ior {
386     \regex_match:nnTF {=} {##1} {
387       \@@_dataparser:w ##1!!
388     }
389     {}
390   }
391   \ior_close:N \l_@@_data_ior
392 }
393 ⟨/ct | bmt | pt | rp | le | ex⟩
```

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

```
394 ⟨*ct | bmt | pt | rp | le | ex⟩
395 \clist_map_inline:nn {en} {
396   \@@_datareader:n { #1 }
397 }
398 %\prop_show:N \g_@@_data_prop
399 \ExplSyntaxOff
400 ⟨/ct | bmt | pt | rp | le | ex⟩
```

7.11   Babel provisions

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).

```
401 ⟨*ct | bmt | pt | rp | le | ex⟩
402 \newcommand*\@logo{\logopos}
403 \AtBeginDocument{
404   \makeatother
405   \@ifpackageloaded{babel}{
406     \addto\captionsenglish{%
407       \uantwerpendocspropread{en}
408     }
409     \addto\captionsdutch{%
410       \uantwerpendocspropread{nl}
411     }
412   }
```

```
413    {}
414    \uantwerpendocspropread{degree}
415    \uantwerpendocspropread{doctype}
416    \makeatletter
417 }
418 ⟨/ct | bmt | pt | rp | le | ex⟩
```

The English data can be found below:

```
419 ⟨*endata⟩
420 org-be   = Faculty of Business and Economics
421 org-fbd  = Faculty of Pharmaceutical, Biomedical and Veterinary Sciences
422 org-ggw  = Medicine and Health Sciences
423 org-lw   = Faculty of Arts
424 org-ow   = Faculty of Design Sciences
425 org-re   = Faculty of Law
426 org-sw   = Faculty of Social Sciences
427 org-ti   = Faculty of Applied Engineering
428 org-we   = Faculty of Science
429 org-iob  = Institute of Development Policy
430 org-ua   = University of Antwerp
431 arr              = All rights reserved
432 crdisclaimer     = Copyright disclaimer
433 arrphd           = The author allows to consult and copy parts of this work for personal u
434 integrityclause  = The PhD researcher and supervisor(s) declare that the PhD research was
435 embargofull      = The author of this thesis declares that this document is marked confide
436 embargotemp      = The author of this thesis declares that this document is marked confide
437 confidential     = confidential
438 of               = of
439 domainname       = uantwerp.be
440 datename         = Date
441 subjectname      = Subject
442 acyearname       = Academic year
443 baname           = Bachelor of Science
444 spname           = Switching Programme
445 vpname           = Preparatory Programme
446 maname           = Master of Science
447 phdname          = PhD
448 thesisname       = Thesis
449 mthesisname      = Master's thesis
450 bthesisname      = Bachelor's thesis
451 lecturername     = Lecturer
452 lecturersname    = Lecturers
453 supervisorname   = Supervisor
454 supervisorsname  = Supervisors
455 cosupervisorname = Cosupervisor
456 cosupervisorsname = Cosupervisors
457 extsupervisorname = External supervisor
458 extsupervisorsname = External supervisors
459 examname         = Exam --- Examen
460 seriesname       = Series
461 lastname         = Last name --- Naam
462 firstname        = First name --- Voornaam
463 docketname       = Docket No. --- Rolnr.
```

```
464 roomname           = Room --- Lokaal
465 roomsname          = Rooms --- Lokalen
466 examstartname      = Start --- Begin
467 examendname        = End --- Einde
468 examdurationname   = Exam duration --- Duur van het examen
469 juryname           = Jury
470 jurymembersname    = Members
471 jurychairname      = Chair
472 bmthesisname  = Thesis to obtain the degree of
473 pthesisnamei  = Thesis submitted for the degree of
474 pthesisnameii = at the University of Antwerp to be defended by
475 weightname         = Weight
476 ⟨/endata⟩
```

The Dutch data can be found below:

```
477 ⟨∗nldata⟩
478 org-be   = Faculteit Bedrijfswetenschappen en Economie
479 org-fbd  = Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
480 org-ggw  = Faculteit Geneeskunde en Gezondheidswetenschappen
481 org-lw   = Faculteit Letteren en Wijsbegeerte
482 org-ow   = Faculteit Ontwerpwetenschappen
483 org-re   = Faculteit Rechten
484 org-sw   = Faculteit Sociale Wetenschappen
485 org-ti   = Faculteit Toegepaste Ingenieurswetenschappen
486 org-we   = Faculteit Wetenschappen
487 org-iob  = Instituut voor Ontwikkelingsbeleid- en beheer
488 org-ua   = Universiteit Antwerpen
489 arr               = Alle rechten voorbehouden
490 crdisclaimer      = Copyright disclaimer
491 arrphd            = De auteur staat toe dat delen van dit werk geraadpleegd en gekopieerd w
492 integrityclause   = De doctoraatsonderzoeker en promotor(en) verklaren dat het doctoraatson
493 embargofull       = De auteur van dit proefschrift verklaart dat dit document confidentieel
494 embargotemp       = De auteur van dit proefschrift verklaart dat dit document confidentieel
495 confidential      = confidentieel
496 of                = van
497 domainname        = uantwerpen.be
498 datename          = Onderwerp
499 subjectname       = Datum
500 acyearname        = Academiejaar
501 baname            = Bachelor of Science
502 spname            = Schakelprogramma
503 vpname            = Voorbereidingsprogramma
504 maname            = Master of Science
505 phdname           = Doctoraat
506 thesisname        = Afstudeerproef
507 mthesisname       = Masterproef
508 bthesisname       = Bachelorproef
509 lecturername      = Titularis
510 lecturersname     = Titularissen
511 supervisorname    = Promotor
512 supervisorsname   = Promotoren
513 cosupervisorname  = Copromotor
514 cosupervisorsname = Copromotoren
```

```
515 extsupervisorname  = Externe Promotor
516 extsupervisorsname = Externe Promotoren
517 examname          = Examen
518 seriesname        = Reeks
519 lastname          = Naam
520 firstname         = Voornaam
521 docketname        = Rolnr.
522 roomname          = Lokaal
523 roomsname         = Lokalen
524 examstartname     = Begin
525 examendname       = Einde
526 examdurationname  = Duur van het examen
527 juryname          = Jury
528 jurymembersname   = Leden
529 jurychairname     = Voorzitter
530 bmthesisname  = Proefschrift tot het behalen van de graad van
531 pthesisnamei  = Proefschrift voorgelegd tot het behalen van de graad van
532 pthesisnameii = aan de Universiteit Antwerpen te verdedigen door
533 weightname        = Gewicht
534 ⟨/nldata⟩
```

7.12   Bachelor and Master document types

```
535 ⟨*doctypedata⟩
536 nl-ba = Bachelorproef
537 nl-ma = Masterproef
538 nl-pr = Projectverslag
539 en-ba = Bachelor's thesis
540 en-ma = Master's thesis
541 en-pr = Project report
542 ⟨/doctypedata⟩

543 ⟨*bmt | ct | pt | ex⟩
544 \ExplSyntaxOn
545 \cs_generate_variant:Nn \prop_item:Nn{ Nx }
546 \NewDocumentCommand{\uantwerpendocsdoctype}{m}{
547   \prop_item:Nx \g_@@_data_prop { #1 }
548 }
549 \ExplSyntaxOff
550 ⟨/bmt | ct | pt | ex⟩
```

7.13   Bachelor and Master disclaimers

```
551 ⟨*bmt⟩
552 \newcommand\disclaimer[1]{
553   Disclaimer #1\newline\newline
554   This document is an examination document that has not been
555   corrected for any errors identified. Without prior written
556   permission of both the supervisor(s) and the author(s), any copying,
557   copying, using or realizing this publication or parts thereof
558   is prohibited. For requests for information regarding the copying
559   and/or use and/or realisation of parts of this publication, please
560   contact to the university at which the author is registered.
```

```
561  \newline\newline
562  Prior written permission from the supervisor(s) is also
563  required for the use for industrial or commercial utility of the
564  (original) methods, products, circuits and programs described in this
565  thesis,  and for the submission of this publication for participation
566  in scientific prizes or competitions.
567  \newline\newline
568  This document is in accordance with the faculty regulations related to this
569  examination document and the Code of Conduct. The text has been reviewed
570  by the supervisor and the attendant.
571  }
572  \AtBeginDocument{
573    \makeatother
574    \@ifpackageloaded{babel}{
575      \addto\captionsdutch{%
576        \renewcommand\disclaimer[1]{
577          Disclaimer #1\newline\newline
578          Dit document is een examendocument dat niet werd gecorrigeerd voor
579          eventueel vastgestelde fouten. Zonder voorafgaande schriftelijke
580          toestemming van zowel de promotor(en) als de auteur(s) is overnemen,
581          kopiëren, gebruiken of realiseren van deze uitgave of gedeelten ervan
582          verboden. Voor aanvragen tot of informatie i.v.m. het overnemen en/of
583          gebruik en/of realisatie van gedeelten uit deze publicatie, wendt u
584          tot de universiteit waaraan de auteur is ingeschreven.
585          \newline\newline
586          Voorafgaande schriftelijke toestemming van de promotor(en) is eveneens
587          vereist voor het aanwenden van de in dit afstudeerwerk beschreven
588          (originele) methoden, producten, schakelingen en programma's voor
589          industrieel of commercieel nut en voor de inzending van deze
590          publicatie ter deelname aan wetenschappelijke prijzen of wedstrijden.
591          \newline\newline
592          Dit document is in overeenstemming met het facultair reglement
593          gerelateerd aan dit examendocument en de gedragscode. De tekst werd
594          nagekeken door de promotor en de begeleider.
595        }
596      }
597    }{}
598    \makeatletter
599  }
600  ⟨/bmt⟩
```

7.14   Educational degrees

```
601  ⟨*degreedata⟩
602  ti-nl-ba-bk = Bachelor of Science in de industriële wetenschappen: bouwkunde
603  ti-nl-ba-ch = Bachelor of Science in de industriële wetenschappen: chemie
604  ti-nl-ba-em = Bachelor of Science in de industriële wetenschappen: elektromechanica
605  ti-nl-ba-ei = Bachelor of Science in de industriële wetenschappen: elektronica-
     ICT
606  ti-en-ba-bk = Bachelor of Science in de industriële wetenschappen: bouwkunde
607  ti-en-ba-ch = Bachelor of Science in de industriële wetenschappen: chemie
608  ti-en-ba-em = Bachelor of Science in de industriële wetenschappen: elektromechanica
609  ti-en-ba-ei = Bachelor of Science in de industriële wetenschappen: elektronica-
     ICT
```

```
610 ti-nl-ma-bk = Master of Science in de industriële wetenschappen: bouwkunde
611 ti-nl-ma-bch = Master of Science in de industriële wetenschappen: biochemie
612 ti-nl-ma-ch = Master of Science in de industriële wetenschappen: chemie
613 ti-nl-ma-em = Master of Science in de industriële wetenschappen: elektromechanica
614 ti-nl-ma-ei = Master of Science in de industriële wetenschappen: elektronica-
    ICT
615 ti-en-ma-ei = Master of Science in Electronics and ICT Engineering Technology
616 ti-nl-eduma-wtstem = Educatieve master of Science in de wetenschappen en technologie: STEM
617 we-nl-eduma-wtstem = Educatieve master of Science in de wetenschappen en technologie: STEM
618 we-nl-eduma-wtbchbt = Educatieve master of Science in de wetenschappen en technologie: bioch
619 we-nl-eduma-wtbio = Educatieve master of Science in de wetenschappen en technologie: biologi
620 we-nl-eduma-wtch = Educatieve master of Science in de wetenschappen en technologie: chemie
621 we-nl-eduma-wtfy = Educatieve master of Science in de wetenschappen en technologie: fysica
622 we-nl-eduma-wtinf = Educatieve master of Science in de wetenschappen en technologie: informa
623 we-nl-eduma-wtwi = Educatieve master of Science in de wetenschappen en technologie: wiskunde
624 we-nl-ba-bircg = Bachelor of Science in de bio-ingenieurswetenschappen: cel- en genbiotechno
625 we-nl-ba-birvt = Bachelor of Science in de bio-ingenieurswetenschappen: chemie en voedingste
626 we-nl-ba-birlb = Bachelor of Science in de bio-ingenieurswetenschappen: land- en bosbeheer
627 we-nl-ba-birmt = Bachelor of Science in de bio-ingenieurswetenschappen: milieutechnologie
628 we-nl-ba-bio = Bachelor of Science in de biologie
629 we-nl-ma-bioeg = Master of Science in de biologie: evolutie en gedragsbiologie
630 we-en-ma-biocr = Master of Science in biology: biodiversity, conservation and restoration
631 we-en-ma-biogcb = Master of Science in biology: global change biology
632 we-en-ma-biomb = Master of Science in molecular biology
633 we-nl-ba-ch = Bachelor of Science in de chemie
634 we-en-ma-ch = Master of Science in chemistry
635 we-nl-ba-inf = Bachelor of Science in de informatica
636 we-en-ma-infcn = Master of Science in computer science: computer networks
637 we-en-ma-infdsai = Master of Science in computer science: data science and artificial intell
638 we-en-ma-infse = Master of Science in computer science: software engineering
639 we-nl-ma-infcn = Master of Science in de informatica: computernetwerken
640 we-nl-ma-infdsai = Master of Science in de informatica: data science en artificiële intellig
641 we-nl-ma-infse = Master of Science in de informatica: software engineering
642 we-nl-ba-fy = Bachelor of Science in de fysica
643 we-nl-ma-fy = Master of Science in de fysica
644 we-en-ma-fy = Master of Science in physics
645 we-nl-ba-wi = Master of Science in wiskunde
646 we-nl-ma-wifw = Master of Science in wiskunde: fundamentele wiskunde
647 we-nl-ma-wiftw = Master of Science in wiskunde: financiële en toegepaste wiskunde
648 ⟨/degreedata⟩

649 ⟨∗bmt | ct | pt | ex⟩
650 \ExplSyntaxOn
651 \NewDocumentCommand{\uantwerpendocsdegree}{m}{
652   \prop_item:Nx \g_@@_data_prop { #1 }
653 }
654 \ExplSyntaxOff
655 ⟨/bmt | ct | pt | ex⟩
```

7.15   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.

```
656 ⟨*ct | bmt | pt | rp | le | ex⟩
657 \newcommand*{\facultyacronym}[1]{
658   \PackageError{uantwerpendocs}
659   {The '\protect\facultyacronym{}' macro is no longer available. Use
660     your faculty abbreviation in lowercase as class options instead}
661   {The interface of uantwerpendocs 4.0 has been changed. See
662     the uantwerpendocs manual under section '5.2 The class options explained'}
663 }
664 ⟨/ct | bmt | pt | rp | le | ex⟩
```

\department   The department sets the department's name tag \@department that is used in
               the title page information.

```
665 ⟨*ct | bmt | pt⟩
666 \newcommand*{\@department}{}
667 \newcommand*{\department}[1]{
668   \renewcommand*\@department{#1}
669 }
670 ⟨/ct | bmt | pt⟩
```

\title   The title tag is native to LATEX. It sets the \@title tag that will be used on the
          title page.

\titel   This macro sets the \@titel tag that later will be used on the Dutch translation of
          the title page. Moreover, using this tag, will trigger the generation of a secondary
          Dutch title page. Only use this tag in an English thesis!

```
671 ⟨*pt⟩
672 \newcommand*{\@titel}{}
673 \newcommand*{\titel}[1]{%
674   \renewcommand*\@titel{#1}
675 }
676 ⟨/pt⟩
```

\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).

```
677 ⟨*ct | pt | rp⟩
678 \newcommand*{\@subtitle}{~}
679 \newcommand*{\subtitle}[1]{%
680   \renewcommand*\@subtitle{#1}
681 }
682 ⟨/ct | pt | rp⟩
```

\subtitel   This macro sets the \@subtitel tag that later will be used on the Dutch transla-
             tion of the title page. It will not trigger the generation of a secondary Dutch title
             page. That can only be done by using the \titel command. Only use this tag in
             an English thesis!

```
683 ⟨*pt⟩
```

55

```
684 \newcommand*{\@subtitel}{}
685 \newcommand*{\subtitel}[1]{%
686   \renewcommand*\@subtitel{#1}
687 }
688 ⟨/pt⟩
```

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

```
689 ⟨*ex⟩
690 \newcommand*{\@shorttitle}{}
691 \newcommand*{\shorttitle}[1]{%
692   \renewcommand*\@shorttitle{#1}
693 }
694 ⟨/ex⟩
```

\author The author tag is native to LaTeX. 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.

```
695 ⟨*ct⟩
696 \newcommand*{\@courseversion}{}
697 \newcommand*{\courseversion}[1]{\renewcommand*{\@courseversion}{#1}}
698 ⟨/ct⟩
```

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

```
699 ⟨*ct | rp⟩
700 \newcommand*{\@versionyear}{}
701 \newcommand*{\versionyear}[1]{\renewcommand*{\@versionyear}{#1}}
702 ⟨/ct | rp⟩
```

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

```
703 ⟨*ct⟩
704 \newcommand{\@publisher}{Universitas Cursusdienst |
705   Prinsesstraat 16 |
706   2000 Antwerpen |
707   T +32 3 233 23 73 |
708   E info@cursusdienst.be}
709 \newcommand*{\publisher}[1]{\renewcommand*{\@publisher}{#1}}
710 ⟨/ct⟩
```

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

```
711 ⟨*ct⟩
712 \newcommand*{\@publishercode}{}
713 \newcommand*{\publishercode}[1]{\renewcommand*{\@publishercode}{#1}}
714 ⟨/ct⟩
```

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

```
715 ⟨∗bmt⟩
716 \newcommand*{\@companylogo}{}
717 \newcommand*{\companylogo}[1]{\renewcommand*{\@companylogo}{#1}}
718 ⟨/bmt⟩
```

\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!

```
719 ⟨∗ct | ex⟩
720 \ExplSyntaxOn
721 \seq_new:N \g_@@_lecturers
722 \cs_new:Nn \@@_addlecturer:n {
723   \seq_gpush:Nn \g_@@_lecturers { #1 }
724 }
725 \NewDocumentCommand{\lecturer}{m}{
726   \@@_addlecturer:n { #1 }
727 }
728 \NewDocumentCommand{\jointlecturers}{m}{
729   \seq_use:Nn \g_@@_lecturers { #1 }
730 }
731 \NewDocumentCommand{\lecturersname}{}{
732   \if_int_compare:w \seq_count:N \g_@@_lecturers > 1
733   \uantwerpendocsprop{lecturersname}
734   \else:
735   \if_int_compare:w \seq_count:N \g_@@_lecturers > 0
736   \uantwerpendocsprop{lecturername}
737   \fi
738   \fi:
739 }
740 \AtBeginDocument{
741   \seq_greverse:N \g_@@_lecturers
742 }
743
744 \ExplSyntaxOff
745 ⟨/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).

```
746 ⟨∗rp⟩
747 \newcommand\@extra{}
748 \newcommand\extra[1]{\renewcommand\@extra{#1}}
749 ⟨/rp⟩
```

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

```
750 ⟨∗pt | rp⟩
751 \newcommand\@affiliation{
752   \PackageError{uantwerpendocs}
753   {Please, define the affiliation of the author using the
```

```
754      '\protect\affiliation{}' command in the preamble of your
755      document.}
756    {See the uantwerpendocs manual}
757 }
758 \newcommand\affiliation[1]{\renewcommand\@affiliation{#1}}
759 ⟨/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!

```
760 ⟨∗bmt | pt⟩
761 \ExplSyntaxOn
762 \seq_new:N \g_@@_supervisors
763 \seq_new:N \g_@@_supervisorswithaffiliation
764 \cs_new:Nn \@@_addsupervisor:nn {
765   \seq_gpush:Nn \g_@@_supervisors { #1 }
766   \seq_gpush:Nn \g_@@_supervisorswithaffiliation { #1,~#2 }
767 }
768 \NewDocumentCommand{\supervisor}{mm}{
769   \@@_addsupervisor:nn { #1 } { #2 }
770 }
771 \NewDocumentCommand{\jointsupervisors}{mm}{
772   \seq_use:Nnnn \g_@@_supervisors { #2 } { #1 } { #2 }
773 }
774 \NewDocumentCommand{\jointsupervisorswithaffiliation}{mm}{
775   \seq_use:Nnnn \g_@@_supervisorswithaffiliation { #2 } { #1 } { #2 }
776 }
777 \NewDocumentCommand{\supervisorsname}{m}{
778   \if_int_compare:w \seq_count:N \g_@@_supervisors > 2
779   \uantwerpendocsprop{supervisorsname} #1
780   \else:
781   \if_int_compare:w \seq_count:N \g_@@_supervisors = 2
782   \uantwerpendocsprop{supervisorname} #1
783   \else:
784   \fi:
785   \fi:
786 }
787 ⟨/bmt | pt⟩
788 ⟨∗bmt⟩
789 \seq_new:N \g_@@_cosupervisors
790 \seq_new:N \g_@@_cosupervisorswithaffiliation
791 \cs_new:Nn \@@_addcosupervisor:nn {
792   \seq_gpush:Nn \g_@@_cosupervisors { #1 }
793   \seq_gpush:Nn \g_@@_cosupervisorswithaffiliation { #1,~#2 }
794 }
795 \NewDocumentCommand{\cosupervisor}{mm}{
796   \@@_addcosupervisor:nn { #1 } { #2 }
797 }
798 \NewDocumentCommand{\jointcosupervisors}{mm}{
799   \seq_use:Nnnn \g_@@_cosupervisors { #2 } { #1 } { #2 }
800 }
801 \NewDocumentCommand{\jointcosupervisorswithaffiliation}{mm}{
802   \seq_use:Nnnn \g_@@_cosupervisorswithaffiliation { #2 } { #1 } { #2 }
```

```
803 }
804 \NewDocumentCommand{\cosupervisorsname}{m}{
805   \if_int_compare:w \seq_count:N \g_@@_cosupervisors > 2
806   \uantwerpendocsprop{cosupervisorsname} #1
807   \else:
808   \if_int_compare:w \seq_count:N \g_@@_cosupervisors = 2
809   \uantwerpendocsprop{cosupervisorname} #1
810   \else:
811   \fi:
812   \fi:
813 }
814 \seq_new:N \g_@@_extsupervisors
815 \seq_new:N \g_@@_extsupervisorswithaffiliation
816 \cs_new:Nn \@@_addextsupervisor:nn {
817   \seq_gpush:Nn \g_@@_extsupervisors { #1 }
818   \seq_gpush:Nn \g_@@_extsupervisorswithaffiliation { #1,~#2 }
819 }
820 \NewDocumentCommand{\extsupervisor}{mm}{
821   \@@_addextsupervisor:nn { #1 } { #2 }
822 }
823 \NewDocumentCommand{\jointextsupervisors}{mm}{
824   \seq_use:Nnnn \g_@@_extsupervisors { #2 } { #1 } { #2 }
825 }
826 \NewDocumentCommand{\jointextsupervisorswithaffiliation}{mm}{
827   \seq_use:Nnnn \g_@@_extsupervisorswithaffiliation { #2 } { #1 } { #2 }
828 }
829 \NewDocumentCommand{\extsupervisorsname}{m}{
830   \if_int_compare:w \seq_count:N \g_@@_extsupervisors > 2
831   \uantwerpendocsprop{extsupervisorsname} #1
832   \else:
833   \if_int_compare:w \seq_count:N \g_@@_extsupervisors = 2
834   \uantwerpendocsprop{extsupervisorname} #1
835   \else:
836   \fi:
837   \fi:
838 }
839 ⟨/bmt⟩
840 ⟨∗pt⟩
841 \AtBeginDocument{
842   \seq_gpush:Nn \g_@@_supervisors {}
843   \seq_greverse:N \g_@@_supervisors
844   \seq_gpush:Nn \g_@@_supervisorswithaffiliation {}
845   \seq_greverse:N \g_@@_supervisorswithaffiliation
846 }
847 ⟨/pt⟩
848 ⟨∗bmt⟩
849 \AtBeginDocument{
850   \seq_gpush:Nn \g_@@_supervisors {}
851   \seq_greverse:N \g_@@_supervisors
852   \seq_gpush:Nn \g_@@_supervisorswithaffiliation {}
853   \seq_greverse:N \g_@@_supervisorswithaffiliation
854   \seq_gpush:Nn \g_@@_cosupervisors {}
855   \seq_greverse:N \g_@@_cosupervisors
856   \seq_gpush:Nn \g_@@_cosupervisorswithaffiliation {}
```

```
857    \seq_greverse:N \g_@@_cosupervisorswithaffiliation
858    \seq_gpush:Nn \g_@@_extsupervisors {}
859    \seq_greverse:N \g_@@_extsupervisors
860    \seq_gpush:Nn \g_@@_extsupervisorswithaffiliation {}
861    \seq_greverse:N \g_@@_extsupervisorswithaffiliation
862  }
863  ⟨/bmt⟩
864  ⟨∗bmt | pt⟩
865  \ExplSyntaxOff
866  ⟨/bmt | pt⟩
```

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

```
867  ⟨∗pt⟩
868  \newcommand*{\@jurychair}{
869    \PackageError{uantwerpendocs}
870    {Please, define a chair of the jury using the
871      '\protect\jurychair{}' command in the preamble of your
872      document.}
873    {See the uantwerpendocs manual}
874  }
875  \newcommand*{\@jurychairaff}{}
876  \newcommand*{\jurychair}[2]{
877    \renewcommand*{\@jurychair}{#1}\renewcommand*{\@jurychairaff}{#2}}
878  ⟨/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!

```
879  ⟨∗pt⟩
880  \ExplSyntaxOn
881  \seq_new:N \g_@@_jurymemberswithaffiliation
882  \cs_new:Nn \@@_addjurymember:nn {
883    \seq_gpush:Nn \g_@@_jurymemberswithaffiliation { #1,~#2 }
884  }
885  \NewDocumentCommand{\jurymember}{mm}{
886    \@@_addjurymember:nn { #1 } { #2 }
887  }
888  \NewDocumentCommand{\jointjurymembers}{m}{
889    \seq_use:Nn \g_@@_jurymemberswithaffiliation { #1 }
890  }
891  \AtBeginDocument{
892    \seq_greverse:N \g_@@_jurymemberswithaffiliation
893  }
894  \ExplSyntaxOff
895  ⟨/pt⟩
```

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

```
896  ⟨∗pt⟩
897  \newcommand*\phddegree{
898    \PackageError{uantwerpendocs}
```

```
899    {The '\protect\phddegree{}' macro is no longer available. Use
900       '\protect\degree{}' instead}
901    {The interface of uantwerpendocs 4.0 has been changed. Use the
902       '\protect\degree' macro to specify your degree in full text (see
903       the uantwerpendocs manual)'}
904  }
905  ⟨/pt⟩
906  %
907  %
908  % \begin{macro}{\degree}
909  %    This macro sets the |\@degree| tag that later will
910  %    be used on the title pages.
911  %    The theses allow for a single degree (as multiple is physically
912  %    impossible), while a course text and an exam allow for multiple
913  %    degrees (to be specified in the desired order).
914  %       \begin{macrocode}
915  ⟨*bmt | pt⟩
916  \newcommand*\@degree{
917    \PackageError{uantwerpendocs}
918    {Please, specify the offical degree description using
919       the '\protect\degree{}'  macro in the preamble of your document.}
920    {See the uantwerpendocs manual}
921  }
922  \newcommand*\degree[1]{\renewcommand*\@degree{#1}}
923  ⟨/bmt | pt⟩
924  %
925  % \changes{v4.06}{}{Allowed for specification of multiple degrees for
926  % course texts and exams}
927  ⟨*ct | ex⟩
928  \ExplSyntaxOn
929  \seq_new:N \g_@@_degrees
930  \cs_new:Nn \@@_adddegree:n {
931    \seq_gpush:Nn \g_@@_degrees { #1 }
932  }
933  \NewDocumentCommand{\degree}{m}{
934    \@@_adddegree:n { #1 }
935  }
936  \NewDocumentCommand{\jointdegrees}{mm}{
937    \seq_use:Nnnn \g_@@_degrees { #2 } { #1 } { #2 }
938  }
939  \AtBeginDocument{
940    \seq_greverse:N \g_@@_degrees
941    \let\degree\relax
942  }
943  \ExplSyntaxOff
944  ⟨/ct | ex⟩
945
```

\bamadoctype   This macro sets the \@bamadoctype tag that later will be used on the title pages.

```
946  ⟨*bmt | pt | ct | ex⟩
947  \newcommand*\@bamadoctype{
948    \PackageError{uantwerpendocs}
949    {Please, specify the offical document type, either using
```

```
950       the '\protect\bamadoctype{}'  macro or the '\protect\bamadegree{}'
951       macro in the preamble of your document.}
952     {See the uantwerpendocs manual}}
953   \newcommand*\bamadoctype[1]{
954     \renewcommand*\@bamadoctype{\uantwerpendocsdoctype{#1}}
955   }
956   ⟨/bmt | pt | ct | ex⟩
```

\bamadegree   This macro sets the \@bamadoctype and \@degree tags that later will be used on
              the title pages.

```
957   ⟨∗bmt | pt | ct | ex⟩
958   \ExplSyntaxOn
959   \NewDocumentCommand{\bamadegree}{m}{
960     \seq_new:N \l_@@_degreechunks
961     \regex_extract_all:nnN { [^-]+ } { #1 } \l_@@_degreechunks
962     \bamadoctype{\seq_item:Nn \l_@@_degreechunks {2} - \seq_item:Nn \l_@@_degreechunks {3}}
963     \degree{\uantwerpendocsdegree{#1}}
964   }
965   \ExplSyntaxOff
966   ⟨/bmt | pt | ct | ex⟩
```

\programme   This macro is no longer in use.

```
967   ⟨∗ct | pt | ex⟩
968   \newcommand*{\programme}[3]{
969     \PackageError{uantwerpendocs}
970     {The '\protect\programme{}{}{}' macro is no longer available. Use
971       '\protect\degree{}' instead}
972     {The interface of uantwerpendocs 4.0 has been changed. Use the
973       '\protect\degree' macro to specify your degree in full text (see
974       the uantwerpendocs manual)'}
975   }
976   ⟨/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!

```
977   ⟨∗ct⟩
978   \newcommand*\coursei[2]{
979     PackageError{uantwerpendocs}
980     {The '\protect\coursei{}' macro is no longer available. Use
981       '\protect\course{}' instead (multiple times if you need to)}
982     {The interface of uantwerpendocs 4.0 has been changed. Use the
983       '\protect\course macro instead of the \protect\coursei,
984       \protect\courseii, \protect\courseiii and \protect\courseiv macros
985       that existed earlier (see
986       the uantwerpendocs manual)'}
987   }
988   \ExplSyntaxOn
989   \seq_new:N \g_@@_courseswithcodes
990   \cs_new:Nn \@@_addcourse:nn {
```

```
991    \seq_gpush:Nn \g_@@_courseswithcodes{ \texttt{#1}~#2 }
992  }
993  \NewDocumentCommand{\course}{mm}{
994    \@@_addcourse:nn { #1 } { #2 }
995  }
996  \NewDocumentCommand{\jointcourseswithcodes}{m}{
997    \seq_use:Nn \g_@@_courseswithcodes { #1 }
998  }
999  \AtBeginDocument{
1000    \seq_greverse:N \g_@@_courseswithcodes
1001  }
1002  \ExplSyntaxOff
1003  ⟨/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.

```
1004  ⟨*ex⟩
1005  \newcommand*{\@coursecode}{}
1006  \newcommand*{\@course}{}
1007  \newcommand*{\course}[2]{
1008    \renewcommand*{\@coursecode}{#1}
1009    \renewcommand*{\@course}{#2}
1010  }
1011  ⟨/ex⟩
```

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

```
1012  ⟨*bmt | pt⟩
1013  \newcommand*{\diploma}[1]{
1014    \PackageError{uantwerpendocs}
1015    {The '\protect\diploma{}' macro is no longer available. Use
1016      '\protect\degree{}' instead}
1017    {The interface of uantwerpendocs 4.0 has been changed. Use the
1018      '\protect\degree' macro to specify your degree in full text (see
1019      the uantwerpendocs manual)'}
1020  }
1021  ⟨/bmt | pt⟩
```

\defensedate This macro sets the \@defensedate tags that later will be used on the title page. It must contain day, month and year of the public defense.

```
1022  ⟨*pt⟩
1023  \newcommand*\@defensedate{ERROR - specify day, month and year}
1024  \newcommand*{\defensedate}[1]{\renewcommand*\@defensedate{#1}}
1025  ⟨/pt⟩
```

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

```
1026  ⟨*pt⟩
1027  \newcommand*\@defenselocation{Antwerpen}
```

1028 `\newcommand*{\defenselocation}[1]{\renewcommand*\@defenselocation{#1}}`
1029 ⟨/pt⟩

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

1030 ⟨∗ct | pt | rp⟩
1031 `\newcommand*\@titlepageimage{}`
1032 `\newcommand*\titlepageimage[1]{\renewcommand*\@titlepageimage{#1}}`
1033 ⟨/ct | pt | rp⟩

\embargofull This macro causes the full embargo message to be printed in colofon of your thesis.

1034 ⟨∗pt⟩
1035 `\newif\if@fullembargo`
1036 `\@fullembargofalse`
1037 `\newif\if@tempembargo`
1038 `\@tempembargofalse`
1039 `\newcommand*{\embargofull}{`
1040   `\@tempembargofalse`
1041   `\@fullembargotrue`
1042 `}`
1043 ⟨/pt⟩

\embargotemp This macro causes the temporary embargo message to be printed in colofon of
your thesis using the first argument of the macro as start date and the second
argument as the end date.

1044 ⟨∗pt⟩
1045 `\newif\if@tempembargo`
1046 `\@tempembargofalse`
1047 `\ExplSyntaxOn`
1048 `\tl_new:N \embargotempstart`
1049 `\tl_new:N \embargotempend`
1050 `\newcommand*{\embargotemp}[2]{`
1051   `\@fullembargofalse`
1052   `\@tempembargotrue`
1053   `\tl_new:N \l_@@_embargostartdate_tl`
1054   `\tl_new:N \l_@@_embargoenddate_tl`
1055   `\tl_set:Nx \l_@@_embargostartdate_tl {#1}`
1056   `\tl_set:Nx \l_@@_embargoenddate_tl {#2}`
1057   `\regex_replace_all:nnN {\s} {\~} \l_@@_embargostartdate_tl`
1058   `\regex_replace_all:nnN {\s} {\~} \l_@@_embargoenddate_tl`
1059   `\tl_gset_eq:NN \embargotempstart \l_@@_embargostartdate_tl`
1060   `\tl_gset_eq:NN \embargotempend \l_@@_embargoenddate_tl`
1061 `}`
1062 `\ExplSyntaxOff`
1063 ⟨/pt⟩

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

1064 ⟨∗pt⟩

64

```
1065 \newcommand*{\@doi}{}
1066 \newcommand*{\doi}[1]{\renewcommand*{\@doi}{\url{#1}}}
1067 ⟨/pt⟩
```

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

```
1068 ⟨∗ct | bmt | ex⟩
1069 \newcommand*{\@academicyear}{XXX-YYYY}
1070 \newcommand*{\academicyear}[1]{\renewcommand*{\@academicyear}{#1}}
1071 ⟨/ct | bmt | ex⟩
```

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

```
1072 ⟨∗ct | rp⟩
1073 \newcommand{\@copyrightnotices}{}
1074 \newcommand{\copyrightnotices}[1]{\renewcommand{\@copyrightnotices}{#1}}
1075 ⟨/ct | rp⟩
1076 ⟨∗bmt⟩
1077 \newcommand{\@copyrightnotices}{\disclaimer{\@bamadoctype}}
1078 ⟨/bmt⟩
```

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

```
1079 ⟨∗le⟩
1080 \newcommand*{\@sender}{< Specify sender using
1081   \textbackslash{}sender\{name\}\{role\} >}
1082 \newcommand*{\@senderrole}{~}
1083 \newcommand*{\sender}[2]{\renewcommand*{\@sender}{#1}\renewcommand*{\@senderrole}{#2}}
1084 ⟨/le⟩
```

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

```
1085 ⟨∗le | ex⟩
1086 \newcommand*{\logo}[1]{\renewcommand*{\@logo}{#1}}
1087 ⟨/le | ex⟩
```

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

```
1088 ⟨∗le⟩
1089 \newcommand*{\@unit}{}
1090 \newcommand*{\unit}[1]{\renewcommand*{\@unit}{#1}}
1091 ⟨/le⟩
```

\email This macro allows for the registration of contact email addresses for a letter. This can be done by invoking the macro as many times as needed (as of v4.2)

```
1092 ⟨∗le⟩
1093 \ExplSyntaxOn
1094 \seq_new:N \g_@@_emailaddresses
```

```
1095 \cs_new:Nn \@@_addemailaddress:nn {
1096   \seq_gpush:Nn \g_@@_emailaddresses {#1\tat{}#2}
1097 }
1098 \NewDocumentCommand{\email}{mm}{
1099   \@@_addemailaddress:nn { #1 } { #2 }
1100 }
1101 \NewDocumentCommand{\jointemails}{m}{
1102   \seq_use:Nn \g_@@_emailaddresses { #1 }
1103 }
1104 \NewDocumentCommand{\ifemails}{m}{
1105   \seq_if_empty:NTF \g_@@_emailaddresses {} {#1}
1106 }
1107 \AtBeginDocument{
1108   \seq_greverse:N \g_@@_emailaddresses
1109 }
1110 \ExplSyntaxOff
1111 ⟨/le⟩
```

\phone This macro allows for the registration of contact phone numbers for a letter. This can be done by invoking the macro as many times as needed (as of v4.2)

```
1112 ⟨*le⟩
1113 \ExplSyntaxOn
1114 \seq_new:N \g_@@_phonenumbers
1115 \cs_new:Nn \@@_addphonenumber:n {
1116   \seq_gpush:Nn \g_@@_phonenumbers {#1}
1117 }
1118 \NewDocumentCommand{\phone}{m}{
1119   \@@_addphonenumber:n { #1 }
1120 }
1121 \NewDocumentCommand{\jointphones}{m}{
1122   \seq_use:Nn \g_@@_phonenumbers { #1 }
1123 }
1124 \NewDocumentCommand{\ifphones}{m}{
1125   \seq_if_empty:NTF \g_@@_phonenumbers {} {#1}
1126 }
1127 \AtBeginDocument{
1128   \seq_greverse:N \g_@@_phonenumbers
1129 }
1130 \ExplSyntaxOff
1131 ⟨/le⟩
```

\fax This macro allows for the registration of contact fax numbers for a letter. This can be done by invoking the macro as many times as needed (as of v4.2)

```
1132 ⟨*le⟩
1133 \ExplSyntaxOn
1134 \seq_new:N \g_@@_faxnumbers
1135 \cs_new:Nn \@@_addfaxnumber:n {
1136   \seq_gpush:Nn \g_@@_faxnumbers {#1}
1137 }
1138 \NewDocumentCommand{\fax}{m}{
1139   \@@_addfaxnumber:n { #1 }
```

```
1140 }
1141 \NewDocumentCommand{\jointfaxes}{m}{
1142   \seq_use:Nn \g_@@_faxnumbers { #1 }
1143 }
1144 \NewDocumentCommand{\iffaxes}{m}{
1145   \seq_if_empty:NTF \g_@@_faxnumbers {} {#1}
1146 }
1147 \AtBeginDocument{
1148   \seq_greverse:N \g_@@_faxnumbers
1149 }
1150 \ExplSyntaxOff
1151 ⟨/le⟩
```

\mobile This macro allows for the registration of contact mobile numbers for a letter. This can be done by invoking the macro as many times as needed (as of v4.2)

```
1152 ⟨*le⟩
1153 \ExplSyntaxOn
1154 \seq_new:N \g_@@_mobilenumbers
1155 \cs_new:Nn \@@_addmobilenumber:n {
1156   \seq_gpush:Nn \g_@@_mobilenumbers {#1}
1157 }
1158 \NewDocumentCommand{\mobile}{m}{
1159   \@@_addmobilenumber:n { #1 }
1160 }
1161 \NewDocumentCommand{\jointmobiles}{m}{
1162   \seq_use:Nn \g_@@_mobilenumbers { #1 }
1163 }
1164 \NewDocumentCommand{\ifmobiles}{m}{
1165   \seq_if_empty:NTF \g_@@_mobilenumbers {} {#1}
1166 }
1167 \AtBeginDocument{
1168   \seq_greverse:N \g_@@_mobilenumbers
1169 }
1170 \ExplSyntaxOff
1171 ⟨/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).

```
1172 ⟨*le⟩
1173 \newcommand*{\@returnaddress}{<specify return-address using \textbackslash\{single-
     line-return-address\}>}
1174 \renewcommand*{\returnaddress}[1]{\renewcommand*{\@returnaddress}{#1}}
1175 ⟨/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).

```
1176 ⟨*le⟩
1177 \newcommand*{\@to}{<Specify addressee using \textbackslash{}to\{name\}>}
1178 \renewcommand*{\to}[1]{\renewcommand*{\@to}{#1}}
1179 ⟨/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).

```
1180 ⟨∗le⟩
1181 \newcommand*{\@toorganization}{}
1182 \newcommand*{\toorganization}[1]{\renewcommand*{\@toorganization}{#1}}
1183 ⟨/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).

```
1184 ⟨∗le⟩
1185 \newcommand*{\@toaddress}{}
1186 \newcommand*{\toaddress}[1]{\renewcommand*{\@toaddress}{#1}}
1187 ⟨/le⟩
```

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

```
1188 ⟨∗le⟩
1189 \newcommand*{\@subject}{-}
1190 \newcommand*{\subject}[1]{\renewcommand*{\@subject}{#1}}
1191 ⟨/le⟩
```

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

```
1192 ⟨∗le⟩
1193 \renewcommand*{\opening}[1]{#1}
1194 ⟨/le⟩
```

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

```
1195 ⟨∗le⟩
1196 \newcommand*{\@closing}{<specify a closing formula using
1197   \textbackslash{}closing\{\}>}
1198 \renewcommand*{\closing}[1]{\renewcommand*{\@closing}{#1}}
1199 ⟨/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

```
1200 ⟨∗le⟩
1201 \newcommand*{\@signature}{\vspace*{8ex}}
1202 \renewcommand*{\signature}[1]{\renewcommand*{\@signature}{#1}}
1203 ⟨/le⟩
```

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

```
1204 ⟨∗le⟩
1205 \newcommand*{\@carboncopy}{}
1206 \newcommand*{\carboncopy}[1]{\renewcommand*{\@carboncopy}{#1}}
1207 ⟨/le⟩
```

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

```
1208 ⟨∗le⟩
1209 \newcommand*{\@enclosed}{}
1210 \newcommand*{\enclosed}[1]{\renewcommand*{\@enclosed}{#1}}
1211 ⟨/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).

```
1212 ⟨∗pt | rp | le⟩
1213 \newcommand*{\@address}{
1214   \PackageError{uantwerpendocs}
1215   {Please, set your multi-line address and contact details using the
1216     '\protect\address{}' command in the preamble of your document}
1217   {See the uantwerpendocs manual}
1218 }
1219 ⟨/pt | rp | le⟩
1220 %
1221 ⟨pt | rp⟩\newcommand*{\address}[1]{\renewcommand*{\@address}{#1}}
1222 ⟨le⟩\renewcommand*{\address}[1]{\renewcommand*{\@address}{#1}}
1223 %    \end{macrocode}
1224 % \end{macro}
1225 %
1226 % \begin{macro}{\exampart}
1227 %    This macro will set the |\@examgropunumber| tag that will be used on
1228 %    the exam title page.
1229 %      \begin{macrocode}
1230 ⟨∗ex⟩
1231 \newcommand*{\@exampart}{}
1232 \newcommand*{\exampart}[1]{\renewcommand*{\@exampart}{#1}}
1233 ⟨/ex⟩
```

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

```
1234 ⟨∗ex⟩
1235 \newcommand*{\@examgroupnumber}{}
1236 \newcommand*{\examgroupnumber}[1]{\renewcommand*{\@examgroupnumber}{#1}}
1237 ⟨/ex⟩
```

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

```
1238 ⟨∗ex⟩
1239 \newcommand*{\@examdate}{TBD}
1240 \newcommand*{\examdate}[1]{\renewcommand*{\@examdate}{#1}}
1241 ⟨/ex⟩
```

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

```
1242 ⟨∗ex⟩
```

```
1243 \newcommand*{\@examlength}{TBD}
1244 \newcommand*{\examlength}[1]{\renewcommand*{\@examlength}{#1}}
1245 ⟨/ex⟩
```

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

```
1246 ⟨*ex⟩
1247 \newcommand*{\@tstart}{TBD}
1248 \newcommand*{\tstart}[1]{\renewcommand*{\@tstart}{#1}}
1249 ⟨/ex⟩
```

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

```
1250 ⟨*ex⟩
1251 \newcommand*{\@tend}{TBD}
1252 \newcommand*{\tend}[1]{\renewcommand*{\@tend}{#1}}
1253 ⟨/ex⟩
```

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

```
1254 ⟨*ex⟩
1255 \ExplSyntaxOn
1256 \seq_new:N \g_@@_rooms
1257 \cs_new:Nn \@@_addroom:n {
1258   \seq_gpush:Nn \g_@@_rooms { #1 }
1259 }
1260 \NewDocumentCommand{\room}{m}{
1261   \@@_addroom:n { #1 }
1262 }
1263 \NewDocumentCommand{\jointrooms}{m}{
1264   \seq_use:Nn \g_@@_rooms { #1 }
1265 }
1266 \NewDocumentCommand{\roomsname}{}{
1267   \if_int_compare:w \seq_count:N \g_@@_rooms > 1
1268   \uantwerpendocsprop{roomsname}
1269   \else:
1270   \uantwerpendocsprop{roomname}
1271   \fi:
1272 }
1273 \AtBeginDocument{
1274   \seq_greverse:N \g_@@_rooms
1275 }
1276
1277 \ExplSyntaxOff
1278 ⟨/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 'sepa-
ratepage' is given), the extra info will start on a new page an will be terminated
by a clearpage.

70

```
1279 ⟨∗ex⟩
1280 \newcommand{\@extrainfo}{}
1281 \newcommand\extrainfo[2][separatepage]{
1282   \ifthenelse{\equal{#1}{separatepage}}{
1283     % then
1284     \renewcommand{\@extrainfo}{\clearpage #2 \clearpage}
1285   }
1286   {
1287     % else
1288     \ifthenelse{\equal{#1}{firstpage}}
1289     {
1290       \renewcommand{\@extrainfo}{#2}
1291     }
1292     {
1293       \PackageError{uantwerpendocs}
1294       {The first (optional) argument of '\protect\extrainfo' can
1295         only be 'separatepage' or 'firstpage'}
1296       {See the uantwerpendocs manual)'}
1297     }
1298   }
1299 }
1300 ⟨/ex⟩
```

\studentnr This macro will set the **\@studentnr** tag that will be used in the header of the pages.

```
1301 ⟨∗ex⟩
1302 \newcommand*{\@studentnr}{0}
1303 \newcommand*{\studentnr}[1]{\renewcommand*{\@studentnr}{#1}}
1304 ⟨/ex⟩
```

7.16   Dirty reverse video tricks

Try not to throw up in your mouth...

```
1305 ⟨∗bmt⟩
1306 \ExplSyntaxOn
1307 \seq_new:N \l_title_seq
1308 \cs_generate_variant:Nn \seq_set_split:Nnn { Nnf }
1309 \cs_new_nopar:Npn \@@_reversevideo:f #1
1310 {
1311   \seq_set_split:Nnf \l_title_seq {~} { #1 }
1312   \seq_set_map:NNn \l_title_seq \l_title_seq {\@uantwerpendocshl{##1}}
1313   \seq_use:Nnnn \l_title_seq { ~ } { ~ } { ~ }
1314 }
1315 \NewDocumentCommand{\reversevideo}{m}{
1316   \@@_reversevideo:f { #1 }
1317 }
1318 \ExplSyntaxOff
1319 ⟨/bmt⟩
```

7.17 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:

```
1320 ⟨*ct⟩
1321 \if@twoside
1322 \lhead[\thepage]{\slshape\rightmark}
1323 \chead[]{}
1324 \rhead[\slshape\leftmark]{\thepage}
1325 \lfoot[\uantwerpendocsprop{org-ua} -- \@facultyacronym]{\@courseversion}
1326 \cfoot[]{}
1327 \rfoot[]{\@title{}\ifdefvoid{\@subtitle}{}{ --- \@subtitle}}
1328 \else
1329 \lhead[]{\leftmark}
1330 \chead[]{}
1331 \rhead[]{\thepage}
1332 \lfoot[]{\@courseversion}
1333 \cfoot[]{UAntwerpen--\@facultyacronym}
1334 \rfoot[]{\@title{}}
1335 \fi
1336 ⟨/ct⟩
```

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

```
1337 ⟨*bmt⟩
1338 \AtBeginDocument{
1339   \setlength{\headheight}{13.7pt}
1340   \renewcommand*{\headrulewidth}{0pt}
1341   \renewcommand*{\footrulewidth}{0pt}
1342   \newsavebox\smallogo
1343   \savebox\smallogo{\raisebox{-1ex}{\includegraphics[width=2.5cm]{\logopos}}}
1344   \if@twoside
1345   \lhead[]{\footnotesize\slshape\rightmark}
1346   \chead[]{}
1347   \rhead[\footnotesize\slshape\leftmark]{}
1348   \lfoot[\footnotesize\thepage~\textcolor{maincolor}{\textbf{|}}]{\usebox\smallogo}
1349   \cfoot[\footnotesize\@bamadoctype]{\footnotesize\@bamadoctype}
1350   \rfoot[\usebox\smallogo]{\footnotesize\textcolor{maincolor}{\textbf{|}}~\thepage}
1351   \else
1352   \lhead[]{\footnotesize\slshape\leftmark}
1353   \chead[]{}
1354   \rhead[]{}
1355   \lfoot[]{\usebox\smallogo}
1356   \cfoot[]{\footnotesize\@bamadoctype}
1357   \rfoot[]{\footnotesize\textcolor{maincolor}{\textbf{|}}~\thepage}
1358   \fi
1359   \fancypagestyle{plain}{\pagestyle{fancy}}
1360   % \patchcmd{\chapter}{\thispagestyle{plain}}{\thispagestyle{fancy}}{}{}
1361 }
1362 ⟨/bmt⟩
```

The header and foter of the `phdthesis` and `report` are defined to be:

```
1363 ⟨*pt | rp⟩
```

```
1364 \if@twoside
1365   \lhead[\thepage]{\slshape\rightmark}
1366   \chead[]{}
1367   \rhead[\slshape\leftmark]{\thepage}
1368   \lfoot[]{}
1369   \cfoot[]{}
1370   \rfoot[]{}
1371 \else
1372   \lhead[]{\leftmark}
1373   \chead[]{}
1374   \rhead[]{\thepage}
1375   \lfoot[]{}
1376   \cfoot[]{}
1377   \rfoot[]{}
1378 \fi
1379 ⟨/pt | rp⟩
```

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

```
1380 ⟨*le⟩
1381 \lhead[]{}
1382 \chead[]{}
1383 \rhead[]{}
1384 \lfoot[\small\textcolor{gray}{\@date}]{\textcolor{gray}{\@date}}
1385 \cfoot[]{}
1386 \rfoot[\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}]
1387   {\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}}
1388 ⟨/le⟩
```

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

```
1389 ⟨*ex⟩
1390 \lhead[]{}
1391 \chead[]{}
1392 \cfoot[\small \thepage/\pageref{lastpage}]{\small\thepage/\pageref{lastpage}}
1393 \if@examiner
1394 \rhead[\small EXAMINER VERSION]{\small EXAMINER VERSION}
1395 \AddToShipoutPicture{
1396   \put(60,40){\rotatebox{60}{\textcolor{watermark}{
1397       \fontsize{105}{130}\selectfont Examiner Version}}}}
1398 \else
1399 \rhead[\small Student nr. \@studentnr]{\small Student nr. \@studentnr}
1400 \fi
1401 ⟨/ex⟩
```

Some common code remains:

```
1402 ⟨*ct⟩
1403 \setlength{\headheight}{13.7pt}
1404 \renewcommand*{\headrulewidth}{1pt}
1405 \renewcommand*{\footrulewidth}{1pt}
1406 \pagenumbering{arabic}
1407 ⟨/ct⟩
1408 ⟨*pt | rp | le⟩
1409 \setlength{\headheight}{13.7pt}
```

```
1410 \renewcommand*{\headrulewidth}{0pt}
1411 \renewcommand*{\footrulewidth}{0pt}
1412 ⟨/pt | rp | le⟩
1413 ⟨*ex⟩
1414 \setlength{\headheight}{13.7pt}
1415 \renewcommand*{\headrulewidth}{0pt}
1416 ⟨/ex⟩
```

Remains to take care of filling

```
1417 ⟨*ct | mt | pt | rp | le⟩
1418 \if@filled\else
1419   \raggedright
1420 \fi
1421 \raggedbottom
1422 \onecolumn
1423 ⟨/ct | mt | pt | rp | le⟩
```

7.18   Copyright notice

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

```
1424 ⟨*ct | rp⟩
1425 \newcommand{\@crnotice}{
1426   {
1427     \setlength\parindent{0em}
1428     This document has been typeset using \LaTeX{} and the
1429     \texttt{uantwerpendocs} package.\\
1430     \@copyrightnotices
1431
1432 ⟨/ct | rp⟩
1433 ⟨ct⟩     \@courseversion
1434 ⟨*ct | rp⟩
1435
1436     CONFIDENTIAL AND PROPRIETARY.
1437
1438     \copyright{} \@versionyear{} \uantwerpendocsprop{org-ua},
1439     \uantwerpendocsprop{arr}.
1440   }
1441 }
1442 ⟨/ct | rp⟩
1443 ⟨*bmt⟩
1444 \newcommand{\@crnotice}{
1445   \@copyrightnotices
1446 }
1447 ⟨/bmt⟩
```

7.19   Fancy chapter headers for the phdthesis and report class

```
1448 ⟨*pt | rp⟩
1449 \def\@makechapterhead#1{%
```

```
1450    \vspace*{1ex}%
1451    \begin{flushright}
1452      \makebox[0pt][l]{\rule[-0.4em]{10cm}{1.8em}}\textcolor{white}
1453      {\LARGE\textbf{~\chaptername~}}
1454      \raisebox{-24pt}{
1455        \begin{tikzpicture}
1456          \foreach \theta in {0,5,...,355} {
1457            \node[color=white] at (\theta:0.025)
1458            {\fontsize{72}{12}\selectfont\textbf{\thechapter}};
1459          }
1460          \node[color=gray] at (0,0)
1461          {\fontsize{72}{12}\selectfont\textbf{\thechapter}};
1462        \end{tikzpicture}
1463      }\hspace*{-8pt}
1464      \par\nobreak
1465      \interlinepenalty\@M
1466      \huge\textbf{\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1}}
1467      \par\nobreak
1468    \end{flushright}
1469    \rule{\textwidth}{1pt}
1470    \vspace{5\p@}\par\nobreak
1471    }
1472 \def\@schapter#1{%
1473    \@makeschapterhead{#1}%
1474    \@afterheading
1475 }
1476 \def\@makeschapterhead#1{%
1477    \vspace*{1ex}%
1478    \begin{flushright}
1479      \LARGE\textbf{\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1}}
1480    \end{flushright}
1481    \rule{\textwidth}{1pt}
1482    \vspace{5\p@}\par
1483 }
1484 % overwrite appendix
1485 \def\appendix{
1486    \setcounter{chapter}{0}
1487    \renewcommand*{\thechapter}{\Alph{chapter}}
1488    \renewcommand*\chaptername\appendixname
1489 }
1490 ⟨/pt | rp⟩
```

7.20 Fancy chapter headers for the bamathesis class

```
1491 ⟨*bmt⟩
1492 \addtokomafont{section}{\color{basecolor}}
1493 \addtokomafont{chapter}{\color{basecolor}}
1494 ⟨/bmt⟩
```

7.21 Title page for the masterthesis and coursetext clases

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.

75

\maketitle The macro for the coursetext class:

```
1495 ⟨*ct⟩
1496 \renewcommand\maketitle{%
1497   \pagestyle{empty}
1498   \begin{titlepage}
1499     \AddToShipoutPicture*{%
1500       \put(0,0){%
1501         \if@modern
1502         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1503           \clip (0,0) rectangle(\paperwidth,\paperheight);
1504
1505           \begin{scope}
1506             \clip (2.125,20.192) rectangle (\paperwidth,6);
1507             \fill[sidecolor]
1508             (2.125,20.192) rectangle (\paperwidth,6);
1509             \node[anchor=south west]
1510             at (2.125,6)
1511             {\ifx\@titlepageimage\@empty
1512               \else
1513               \includegraphics[keepaspectratio,
1514               scale=0.01,
1515               min size={18.875cm}{14.192cm}]{\@titlepageimage}
1516               \fi};
1517           \end{scope}
1518
1519
1520           \node
1521           [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1522           at (2.125,27)
1523           {
1524             \textsf{\textbf{\@title}}
1525           };
1526
1527           \node
1528           [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1529           at (2.125,25.5)
1530           {
1531             \textsf{\textbf{\@subtitle}}
1532           };
1533
1534           \node
1535           [anchor=base west,maincolor,text width=13.75cm,align=left,font=\LARGE]
1536           at (2.125,24)
1537           {\textsf{\textbf{\@author}}};
1538
1539
1540           \node
1541           [anchor=west,text width=13.75cm,align=left,font=\large,uauaside]
1542           at (2.125,22)
1543           {\textsf{\jointcourseswithcodes{\\}}};
1544
1545           \fill[maincolor] (2.125,6)
1546           -- (\paperwidth,6)
```

```
1547            -- (\paperwidth,2.625)
1548            -- (2.55,2.625)
1549          arc (-90:-180:0.425)
1550            -- cycle;
1551
1552          \node[white,anchor=west,align=left,font=\large]
1553          (SN) at (2.55,5.1)
1554          {
1555            \begin{tabular}{@{}l@{~\,}p{14.5cm}}
1556              \textsf{\lecturersname}
1557              & \textsf{\textbf{\jointlecturers{ | }}}
1558            \end{tabular}
1559          };
1560
1561          \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
1562          at (2.55,3.7)
1563          {\textsf{\jointdegrees{\\}{\\}}\\
1564            \textsf{\textbf{\@faculty{} \ifx\@department\empty\else |
1565                \@department{} \fi | \@academicyear \hfill
1566                \@publishercode}}\\
1567          \textsf{\@publisher}};
1568
1569          \node[anchor=west] at (2.125,1.313)
1570          {\includegraphics[width=4.75cm]{\logopos}};
1571        \end{tikzpicture}
1572        \else
1573        \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1574          \clip (0,0) rectangle(\paperwidth,\paperheight);
1575          \if@cameraready
1576          \else
1577          \fill[uauamain] (0,29.7) -- (2.2,29.7) -- (2.2,21.435) arc
1578          (0:-90:0.235) -- (0,21.2) -- cycle;
1579          \node[anchor=west] at (2.2,1.8)
1580          {\includegraphics[width=5.2cm]{\logoposua}};
1581          \fi
1582
1583          \node
1584          [anchor=north west,text width=14.75cm,align=left]
1585          at (5,27.1)
1586          {
1587            \fontsize{16}{20}\selectfont\textsf{\textbf{\uantwerpendocsprop{acyearname}}}\\[
1588            \fontsize{16}{20}\selectfont\textsf{\@academicyear}
1589          };
1590
1591          \node
1592          [anchor=north west,text width=14.75cm,align=left]
1593          at (5,22.7)
1594          {
1595            \fontsize{16}{20}\selectfont\textsf{\@faculty{}
1596              \ifx\@department\empty\else | \@department{} \fi}
1597          };
1598
1599          \node
1600          [anchor=north west,text width=14.75cm,align=left] (title)
```

```
1601            at (5,20.9)
1602            {
1603              \fontsize{24}{30}\selectfont\textsf{\textbf{\@title}}\\[1ex]
1604              \fontsize{18}{24}\selectfont\textsf{\@subtitle}
1605            };
1606
1607            \node
1608            [anchor=north west,below=of title,
1609            text width=14.75cm,align=left,
1610            yshift=-0.5cm,color=uauamain] (author)
1611            {
1612              \fontsize{18}{24}\selectfont{\textsf{\@author}}
1613            };
1614
1615            \node
1616            [anchor=north west,below=of author,
1617            text width=14.75cm,align=left,
1618            yshift=-0.5cm]
1619            {
1620              \fontsize{12}{15}\selectfont{\textsf{\jointdegrees{\\}{\\}}}
1621            };
1622
1623            \node
1624            [anchor=north west,text width=14.75cm,align=left] (title)
1625            at (5,13.3)
1626            {
1627              \fontsize{12}{15}\selectfont\textsf{\textbf{\jointlecturers{\\}}}
1628            };
1629
1630            \node
1631            [anchor=north west,text width=14.75cm,align=left] (title)
1632            at (5,10)
1633            {
1634              \fontsize{12}{15}\selectfont\textsf{\jointcourseswithcodes{\\}}
1635            };
1636
1637            \node[anchor=east]
1638            at (19,1.8)
1639            {
1640              \fontsize{12}{15}\selectfont\textsf{\@publishercode}
1641            };
1642
1643        \end{tikzpicture}
1644        \fi
1645      }
1646    }
1647  \end{titlepage}%
1648  ~\par\relax
1649  \clearpage
1650  \if@copyright
1651  \backgroundsetup{contents={Copyright University of Antwerp, All
1652      Rights Reserved}}
1653  \fi
1654  \vspace*{\stretch{1}}
```

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```
1655    \@crnotice
1656    \clearpage
1657    \setcounter{footnote}{0}%
1658    \global\let\thanks\relax
1659    \global\let\maketitle\relax
1660    \global\let\@thanks\@empty
1661    \global\let\title\relax
1662    \global\let\author\relax
1663    \global\let\date\relax
1664    \global\let\and\relax
1665    \pagestyle{fancy}
1666    \thispagestyle{empty}
1667 }
1668 ⟨/ct⟩
```

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

```
1669 ⟨∗ct⟩
1670 \newcommand\makefinalpage{
1671    \if@cameraready
1672    \else
1673    \cleardoublepage
1674    \thispagestyle{empty}
1675    \if@copyright\NoBgThispage\fi
1676    ~% intentionally blank page
1677    \clearpage
1678    \thispagestyle{empty}
1679    \if@copyright\NoBgThispage\fi
1680    \AddToShipoutPicture*{%
1681      \put(0,0){%
1682        \if@modern
1683        \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1684          \clip (0,0) rectangle(\paperwidth,\paperheight);
1685          \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
1686        \end{tikzpicture}
1687        \else
1688        \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1689          \clip (0,0) rectangle(\paperwidth,\paperheight);
1690          \fill[uauamain] (0,21.2) rectangle (21,29.7);
1691        \end{tikzpicture}
1692        \fi
1693      }
1694    }
1695    ~
1696    \fi
1697 }
1698 ⟨/ct⟩
```

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

```
1699 ⟨∗bmt⟩
1700 \renewcommand\maketitle{%
1701    \pagestyle{empty}
1702    \begin{titlepage}
```

```
1703    \AddToShipoutPicture*{%
1704     \put(0,0){%
1705      \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1706       \clip (0,0) rectangle(\paperwidth,\paperheight);
1707       \node
1708       [anchor=north east,align=right]
1709       at (\paperwidth-1.6cm,\paperheight-2.6cm)
1710       {\bfseries\large
1711         \uantwerpendocsprop{acyearname}\\[.75ex]\Large\@academicyear};
1712       \node (title)
1713       [anchor=north west,align=left,
1714       text width={\paperwidth-5.1cm},font=\Huge,text=white,
1715       xshift=1pt]
1716       at (3.5cm,\paperheight-6.4cm)
1717       {\sethlcolor{maincolor}%
1718         \textsf{\textbf{\reversevideo{\@title}}}%
1719         \ifx\@subtitle\empty\else\\\textsf{\reversevideo{\@subtitle}}\fi};
1720       \node
1721       [anchor=north west,font=\LARGE,yshift=-1cm,xshift=-1pt]
1722       at (title.south west)
1723       {%
1724         \textsf{\textbf{\@author}}
1725       };
1726
1727       \node
1728       [anchor=west,align=left,
1729       text width={\paperwidth-5.1cm},font=\normalsize]
1730       at (3.5cm,12cm)
1731       {\textsf{\@bamadoctype}\\%
1732         \textsf{\textbf{\@degree}}
1733       };
1734
1735       \node
1736       [anchor=west,align=left,
1737       text width={\paperwidth-5.1cm},font=\normalsize]
1738       at (3.5cm,7.5cm)
1739       {\supervisorsname{\\}
1740         \textbf{\jointsupervisorswithaffiliation{\\}{~\\~\\}}%
1741         \cosupervisorsname{\\}
1742         \textbf{\jointcosupervisorswithaffiliation{\\}{~\\~\\}}%
1743         \extsupervisorsname{\\}
1744         \textbf{\jointextsupervisorswithaffiliation{\\}{}}
1745       };
1746
1747       \ifx\@companylogo\@empty
1748       \else
1749       \node[anchor=south east] at
1750       (\paperwidth-1.6cm,1.5cm)
1751       {\@companylogo};
1752       \fi
1753
1754
1755       \node[anchor=south west] at
1756       (1.6cm,1.5cm)
```

```
1757          {\includegraphics[width=6.2cm]{\logopos}};
1758        \end{tikzpicture}
1759      }
1760    }
1761  \end{titlepage}%
1762  ~\par\relax
1763  \clearpage
1764  \vspace*{\stretch{1}}
1765  \@crnotice
1766  \clearpage
1767  \setcounter{footnote}{0}%
1768  \global\let\thanks\relax
1769  \global\let\maketitle\relax
1770  \global\let\@thanks\@empty
1771  \global\let\title\relax
1772  \global\let\author\relax
1773  \global\let\date\relax
1774  \global\let\and\relax
1775  \pagestyle{fancy}
1776  \thispagestyle{empty}
1777 }
1778 ⟨/bmt⟩
```

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

```
1779 ⟨*bmt⟩
1780 \newcommand\makefinalpage{
1781 }
1782 ⟨/bmt⟩
```

7.22   Title page for the phdthesis clases

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:

```
1783 ⟨*pt⟩
1784 \ExplSyntaxOn
1785 \tl_new:N \embargotempwithdates
1786 \newcommand\prepmaketitle{
1787   \tl_new:N \l_@@_embargotemp_tl
1788   \tl_set:Nx \l_@@_embargotemp_tl {\prop_item:Nn \g_@@_data_prop{embargotemp}}
1789   \regex_replace_all:nVN {__START__} \embargotempstart \l_@@_embargotemp_tl
1790   \regex_replace_all:nVN {__END__} \embargotempend \l_@@_embargotemp_tl
1791   \regex_replace_all:nnN {\~} {\ } \l_@@_embargotemp_tl
1792   \tl_gset_eq:NN \embargotempwithdates \l_@@_embargotemp_tl
1793 }
1794 \ExplSyntaxOff
1795 \renewcommand\maketitle{%
1796   \prepmaketitle
1797   \pagestyle{empty}
```

```
1798   \if@bare\else
1799   \begin{titlepage}
1800     \AddToShipoutPicture*{%
1801       \put(0,0){%
1802         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1803           \useasboundingbox (0,0) rectangle(\paperwidth,\paperheight);
1804           \fill[lightgray]
1805           (2.125,19) rectangle (\paperwidth+3mm,6);
1806           \begin{scope}
1807             \clip (2.125,19) rectangle (\paperwidth+3mm,6);
1808             \node[anchor=south west]
1809             at (2.125,6)
1810             {\ifx\@titlepageimage\@empty
1811               \else
1812               \includegraphics[keepaspectratio,
1813               scale=0.01,
1814               min size={16.175cm}{13cm}]{\@titlepageimage}
1815               \fi};
1816           \end{scope}
1817
1818           \node
1819           [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1820           at (2.125,23.5)
1821           {
1822             \textsf{\textbf{\@title}}
1823           };
1824
1825           \node
1826           [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1827           at (2.125,21.5)
1828           {
1829             \textsf{\textbf{\@subtitle}}
1830           };
1831
1832           \node
1833           [anchor=base west,maincolor,
1834           text width=13.75cm,align=left,font=\LARGE]
1835           at (2.125,20)
1836           {\textsf{\textbf{\@author}}};
1837
1838           \fill[maincolor] (2.125,6)
1839           -- (\paperwidth+3mm,6)
1840           -- (\paperwidth+3mm,2.625)
1841           -- (2.55,2.625)
1842           arc (-90:-180:0.425)
1843           -- cycle;
1844
1845           \node[white,anchor=west,align=left,font=\large]
1846           (SN) at (2.55,4.9)
1847           {
1848             \begin{tabular}{@{}l@{~\,}p{11.5cm}}
1849               \textsf{\supervisorsname{}}
1850               & \textsf{\textbf{\jointsupervisors{ | }{}}}
1851             \end{tabular}
```

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```
1852              };
1853
1854
1855          \node[white,anchor=west,text width=14.5cm,align=left,font=\small]
1856          at (2.55,3.7)
1857          {\textsf{\uantwerpendocsprop{pthesisnamei}
1858              \@degree{}}\\
1859          \textsf{\textbf{\@faculty{}  \ifx\@department\empty\else |
1860              \@department{} \fi | \@defenselocation, \@defensedate}}};
1861
1862          \node[anchor=west] at
1863          (2.125,1.313)
1864          {\includegraphics[width=4.75cm]{\logoposua}};
1865
1866          \if@tempembargo
1867            \node[anchor=east,font=\large\bfseries,uauaside] at (
1868            (17,1.313) {\uantwerpendocsPROP{confidential}};
1869          \else
1870            \if@fullembargo
1871              \node[anchor=east,font=\large\bfseries,uauaside] at (
1872              (17,1.313) {\uantwerpendocsPROP{confidential}};
1873            \fi
1874          \fi
1875        \end{tikzpicture}
1876      }
1877    }
1878  \end{titlepage}%
1879  ~\par\relax
1880  \cleardoublepage
1881  \fi
1882  \begin{center}
1883    \includegraphics[width=4.75cm]{\logoposua}
1884    \vfill
1885    \@faculty\\
1886    \@department\par
1887    \vfill
1888    \Huge\textsf{\@title}\par
1889    \large\textsf{\@subtitle}\par
1890    \vfill
1891    \normalsize\uantwerpendocsprop{pthesisnamei}\\
1892    \@degree\\
1893    \uantwerpendocsprop{pthesisnameii}\\
1894    \medskip
1895    \textbf{\@author}
1896    \vfill
1897    \if@tempembargo
1898      \uantwerpendocsPROP{confidential}
1899    \else
1900      \if@fullembargo
1901        \uantwerpendocsPROP{confidential}
1902      \fi
1903    \fi
1904    \vfill
1905    \begin{minipage}[b]{0.4\textwidth}
```

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```
1906        \@defenselocation, \@defensedate
1907      \end{minipage}
1908      \hfill
1909      \begin{minipage}[b]{0.4\textwidth}
1910        \flushright
1911        \supervisorsname{\\}
1912        \jointsupervisors{\\}{}
1913      \end{minipage}
1914    \end{center}
1915    \clearpage
1916    \noindent\textbf{\uantwerpendocsprop{juryname}}\hfill\\[1ex]
1917    \textit{\uantwerpendocsprop{jurychairname}}\hfill\break
1918    \@jurychair{}\ifdefvoid{\@jurychairaff}{}{, \@jurychairaff}\\
1919    \hfill\break
1920    \textit{\supervisorsname{}}\hfill\break
1921    \jointsupervisorswithaffiliation{\\}{\\}
1922    \hfill\break
1923    \textit{\uantwerpendocsprop{jurymembersname}}\hfill\break
1924    \jointjurymembers{\\}
1925    \hfill\break
1926    \vfill
1927    \noindent\textbf{Contact}\\
1928    \smallskip
1929    \@author\\
1930    \@affiliation\\
1931    \@address\\
1932    \vfill
1933    \noindent \uantwerpendocsprop{integrityclause}\\~\\
1934    \vfill
1935    \if@fullembargo
1936      \noindent \uantwerpendocsprop{embargofull}
1937      \vfill
1938    \fi
1939    \if@tempembargo
1940      \noindent \embargotempwithdates
1941      \vfill
1942    \fi
1943    \noindent\textbf{\uantwerpendocsprop{crdisclaimer}}\\[0.75ex]
1944    \uantwerpendocsprop{arrphd}
1945    \ifdefempty{\@doi}{}{
1946        ~\\[-\baselineskip]
1947        \vfill
1948        \noindent\begin{minipage}[b]{.5\linewidth}
1949          \@doi
1950        \end{minipage}
1951      }
1952    \thispagestyle{empty}
1953    \ifx\@titel\empty
1954    \else
1955    \clearpage
1956    \begin{center}
1957      \vfill
1958      ~
1959      \vfill
```

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```
1960     Dutch title:
1961     \vfill
1962     \Huge\textsf{\@titel}\par
1963     \large\textsf{\@subtitel}\par
1964     \vfill
1965     ~
1966     \vfill
1967   \end{center}
1968   \fi
1969   \setcounter{footnote}{0}%
1970   \global\let\thanks\relax
1971   \global\let\maketitle\relax
1972   \global\let\@thanks\@empty
1973   \global\let\title\relax
1974   \global\let\author\relax
1975   \global\let\date\relax
1976   \global\let\and\relax
1977   \clearpage
1978   \pagestyle{fancy}
1979   \thispagestyle{empty}
1980 }
1981 \ExplSyntaxOff
1982 ⟨/pt⟩
```

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

```
1983 ⟨*pt⟩
1984 \newcommand\makefinalpage{
1985   \if@bare\else
1986   \cleardoublepage
1987   \thispagestyle{empty}
1988   ~% intentionally blank page
1989   \clearpage
1990   \thispagestyle{empty}
1991   \AddToShipoutPicture*{%
1992     \put(0,0){%
1993       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1994         \useasboundingbox (0,0) rectangle (\paperwidth,\paperheight);
1995         \fill[sidecolor] (-3mm,-3mm) rectangle (2.125cm,2.625cm);
1996       \end{tikzpicture}
1997     }
1998   }
1999   ~
2000   \fi
2001 }
2002 ⟨/pt⟩
```

7.23 Title page for the report clases

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:

```
2003 ⟨∗rp⟩
2004 \renewcommand\maketitle{%
2005   \pagestyle{empty}
2006   \begin{titlepage}
2007     \AddToShipoutPicture*{%
2008       \put(0,0){%
2009         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2010           \clip (0,0) rectangle(\paperwidth,\paperheight);
2011           \fill[lightgray]
2012           (2.125,20.192) rectangle (\paperwidth,6);
2013           \begin{scope}
2014             \clip (2.125,20.192) rectangle (\paperwidth,6);
2015             \node[anchor=south west]
2016             at (2.125,6)
2017             {\ifx\@titlepageimage\@empty
2018               \else
2019               \includegraphics[keepaspectratio,
2020               scale=0.01,
2021               min size={18.875cm}{14.192cm}]{\@titlepageimage}
2022               \fi};
2023           \end{scope}
2024
2025           \node
2026           [anchor=west,text width=17cm,align=left,font=\Huge,uauaside]
2027           at (2.125,\paperheight-3cm)
2028           {
2029             \textsf{\textbf{\@title}}
2030           };
2031
2032           \node
2033           [anchor=west,text width=17cm,align=left,font=\Large,uauaside]
2034           at (2.125,\paperheight-5cm)
2035           {
2036             \textsf{\textbf{\@subtitle}}
2037           };
2038
2039           \node
2040           [anchor=base west,maincolor,
2041           text width=17cm,align=left,font=\LARGE]
2042           at (2.125,\paperheight-6.5cm)
2043           {\textsf{\textbf{\@author}}};
2044
2045           \fill[maincolor] (2.125,6)
2046           -- (\paperwidth,6)
2047           -- (\paperwidth,2.625)
2048           -- (2.55,2.625)
2049           arc (-90:-180:0.425)
2050           -- cycle;
2051
2052           \node[white,anchor=west,text width=17cm,align=left,font=\small]
2053           at (2.55,5.3)
2054           {\textsf{\textbf{\@extra}}};
```

```
2055
2056        \node[white,anchor=west,text width=17cm,align=left,font=\small]
2057        at (2.55,4)
2058        {\textsf{\textbf{\@affiliation{}
2059            | \@versionyear}\\
2060          \@address}};
2061
2062        \node[anchor=west] at
2063        (2.125,1.313)
2064        {\includegraphics[width=4.75cm]{\logopos}};
2065      \end{tikzpicture}
2066    }
2067  }
2068  \end{titlepage}%
2069  ~\par\relax
2070  \cleardoublepage
2071  \begin{center}
2072    \includegraphics[width=4.75cm]{\logopos}
2073    \vfill
2074    \@affiliation\\
2075    \@extra\par
2076    \vfill
2077    \Huge\textsf{\@title}\par
2078    \large\textsf{\@subtitle}\par
2079    \vfill
2080    \textbf{\@author}
2081    \vfill
2082  \end{center}
2083  \clearpage
2084  \vfill
2085  \textbf{Contact}\\
2086  \smallskip
2087  \@author\\
2088  \@affiliation\\
2089  \@address\\
2090  \vfill
2091  \copyright{} \@versionyear{} \@author\\
2092  \uantwerpendocsprop{arr}.
2093  \vfill
2094  \setcounter{footnote}{0}%
2095  \global\let\thanks\relax
2096  \global\let\maketitle\relax
2097  \global\let\@thanks\@empty
2098  \global\let\title\relax
2099  \global\let\author\relax
2100  \global\let\date\relax
2101  \global\let\and\relax
2102  \pagestyle{fancy}
2103  \thispagestyle{empty}
2104  \
2105 }
2106 ⟨/rp⟩
```

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

```
2107 ⟨*rp⟩
2108 \newcommand\makefinalpage{
2109   \cleardoublepage
2110   \thispagestyle{empty}
2111   ~% intentionally blank page
2112   \clearpage
2113   \thispagestyle{empty}
2114   \begin{tikzpicture}[remember picture,overlay]
2115     \node at (current page.center) {
2116       \begin{tikzpicture}[inner sep=0pt]
2117         \clip (0,0) rectangle(\paperwidth,\paperheight);
2118         \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
2119       \end{tikzpicture}
2120     };
2121   \end{tikzpicture}
2122 }
2123 ⟨/rp⟩
```

7.24   Title page for the letter class

7.24.1   Title Page

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

```
2124 ⟨*le⟩
2125 \newcommand\maketitle{%
2126   \pagestyle{fancy}
2127   \thispagestyle{empty}
2128   \AddToShipoutPicture*{%
2129     \put(0,0){%
2130       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2131         \clip (0,0) rectangle(\paperwidth,\paperheight);
2132         \path (current page.north west) +(1.8cm,-1.2cm)
2133         node[anchor=north west] {
2134           \includegraphics[height=1.1cm]{\@logo}
2135         };
2136         \if@nofoldline\else
2137         \draw (current page.north west)
2138         +(1cm,-98mm) -- +(1.5cm,-98mm);
2139         \fi
2140         % 90 x 45
2141         % pos: 20mm van kant, 15mm van onderkant
2142         \path (current page.north east) +(-100mm,-65mm)
2143         node[anchor=west,text width=80mm,align=left] {
2144           \scriptsize\textcolor{gray}{\uline{\@returnaddress}}\\*
2145           \normalsize\@to\\*
2146           \ifx\@toorganization\@empty\else\@toorganization\\*\fi%
2147           \@toaddress
2148         };
2149       \end{tikzpicture}
2150     }
```

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```
2151  }
2152  ~\\[3ex]
2153  \textcolor{uauaside}{\textbf{\@sender}}
2154  \ifx\@senderrole\@empty\\[1.75ex]\else \\*\@senderrole\\[1.75ex]\fi
2155  \@faculty{}
2156  \ifx\@unit\@empty\else\\* \@unit\fi~\\[1.75ex]
2157  \@address\\[1.75ex]
2158  \ifemails{E~\jointemails{\\\phantom{E~}}\\}
2159  \ifphones{T~\jointphones{\\\phantom{T~}}\\}
2160  \iffaxes{F~\jointfaxes{\\\phantom{F~}}\\}
2161  \ifmobiles{M~\jointmobiles{\\\phantom{M~}}\\}
2162  ~\\[4ex]
2163  \begin{tikzpicture}[anchor=north west,align=left,outer sep=0,inner sep=0]
2164    \path
2165    (0,0) node { \scriptsize \strut
2166      \textcolor{gray}{\uppercase\expandafter{\uantwerpendocsprop{datename}} } }
2167    (4cm,0) node { \scriptsize \strut
2168      \textcolor{gray}{\uppercase\expandafter{\uantwerpendocsprop{subjectname}} } }
2169    (0,-2.5ex) node { \strut \@date }
2170    (4cm,-2.5ex) node[align=left] { \strut \@subject };
2171  \end{tikzpicture}~\\[4ex]
2172 }
2173 ⟨/le⟩
```

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

```
2174 ⟨*le⟩
2175 \newif\ifletterclosed
2176 \letterclosedfalse
2177 \newcommand\closeletter{
2178   \ifletterclosed
2179   \else
2180     \@closing\\*[3ex]\@signature~\\[3ex]
2181     \@sender
2182     \ifx\@senderrole\@empty\\[8ex]\else\\*\@senderrole\\[8ex]\fi
2183     \setlength{\parskip}{0em}
2184     \ifx\@carboncopy\@empty\else \MakeUppercase{\ccname}: \@carboncopy\\[4ex]\fi
2185     \ifx\@enclosed\@empty\else \MakeUppercase{\enclname}: \@enclosed\fi
2186     \label{lastpage}
2187     \letterclosedtrue
2188     \pagestyle{empty}
2189     \clearpage
2190   \fi
2191 }
2192 \AtEndDocument{
2193   \closeletter
2194 }
2195 ⟨/le⟩
```

7.25 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.

```
2196 ⟨∗ex⟩
2197 \renewcommand\maketitle{%
2198   \pagestyle{fancy}
2199   \AddToShipoutPicture*{%
2200     \put(0,0){%
2201       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2202         \clip (0,0) rectangle(\paperwidth,\paperheight);
2203         \fill[lightgray]
2204         (2.125,{\paperheight-7cm}) rectangle (\paperwidth,6);
2205
2206         \node
2207         [anchor=west,text width={\paperwidth-5cm},align=left]
2208         at (2.125,{\paperheight-3cm})
2209         {%
2210           \fontsize{18}{22}\selectfont%
2211           \textsf{\textbf{\@course{}}}
2212           \ifx\@exampart\@empty
2213           \else \textsf{\textbf{ --- \@exampart}}\fi
2214         };
2215         \node
2216         [anchor=west,text width={\paperwidth-5cm},align=left]
2217         at (2.125,{\paperheight-4cm})
2218         {%
2219           \fontsize{12}{18}\selectfont%
2220           \textsf{\@coursecode}
2221         };
2222
2223         \node
2224         [anchor=west,text width={\paperwidth-5cm},align=left,font=\large]
2225         at (2.125,{\paperheight-5cm})
2226         {%
2227           \fontsize{12}{18}\selectfont%
2228           \textsf{\uantwerpendocsprop{seriesname} \@examgroupnumber{} \hfill \@examdate{}}
2229         };
2230
2231         \node[anchor=south west,align=left,inner sep=0pt] at (3,21)
2232         {%
2233           \fontsize{14}{19}\selectfont%
2234           \textsf{\uantwerpendocsprop{examname}}
2235         };
2236
2237         \node[anchor=south west,align=left,inner sep=0pt] at (3,19)
2238         {%
2239           \fontsize{12}{18}\selectfont%
2240           \textsf{\uantwerpendocsprop{lastname}}
2241         };
2242         \foreach \nn in {0,1,...,33} {
2243           \draw[fill=white] (3,18) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2244         }
2245
2246         \node[anchor=south west,align=left,inner sep=0pt] at (3,17)
2247         {%
```

90

```
2248          \fontsize{12}{18}\selectfont%
2249          \textsf{\uantwerpendocsprop{firstname}}
2250        };
2251
2252        \foreach \nn in {0,1,...,23} {
2253          \draw[fill=white] (3,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2254        }
2255
2256        \node[anchor=south west,align=left,inner sep=0pt] at (16,17)
2257        {%
2258          \fontsize{12}{18}\selectfont%
2259          \textsf{\uantwerpendocsprop{docketname}}
2260        };
2261        \foreach \nn in {0,1,...,7} {
2262          \draw[fill=white] (16,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2263        }
2264
2265        \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2266        at (3,14)
2267        {%
2268          \fontsize{12}{21}\selectfont%
2269          \textsf{\uantwerpendocsprop{examdurationname}: \@examlength}
2270        };
2271        \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2272        at (3,11)
2273        {%
2274          \fontsize{12}{15}\selectfont%
2275          \textsf{\begin{tabular}{@{}l@{}ll}%
2276            \uantwerpendocsprop{examstartname}& : & \@tstart\\
2277            \uantwerpendocsprop{examendname}  & : & \@tend
2278          \end{tabular}}
2279        };
2280
2281        \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2282        at (3,8)
2283        {%
2284          \fontsize{12}{21}\selectfont%
2285          \textsf{\roomsname: \jointrooms{, }}
2286        };
2287
2288        \node
2289        [anchor=base west,uauamain,
2290        text width={\paperwidth-5cm},align=left,font=\LARGE]
2291        at (2.125,{\paperheight-6.5cm})
2292        {\textsf{\textbf{\@author}}};
2293
2294        \fill[gray] (2.125,6)
2295        -- (\paperwidth,6)
2296        -- (\paperwidth,2.625)
2297        -- (2.55,2.625)
2298        arc (-90:-180:0.425)
2299        -- cycle;
2300
2301        \node[white,anchor=west,align=left,font=\large]
```

```
2302        (SN) at (2.55,4.9)
2303        {
2304          \begin{tabular}{@{}l@{~\,}p{14.5cm}}
2305            \textsf{\lecturersname}
2306            & \textsf{\textbf{\jointlecturers{ | }}}
2307          \end{tabular}
2308        };
2309
2310        \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
2311        at (2.55,3.7)
2312        {\textsf{\jointdegrees{\\}{\\}}\\
2313          \textsf{\textbf{\@faculty{}}}};
2314
2315        \node[anchor=west] at (2.125,1.313)
2316        {\includegraphics[width=4.75cm]{\logopos}};
2317      \end{tikzpicture}
2318    }
2319  }
2320  ~\par\relax
2321  \clearpage
2322  \lfoot[\small \@shorttitle]{\small \@shorttitle}
2323  \rfoot[\small Groep \@examgroupnumber{} ---
2324  \@academicyear]{\small Groep \@examgroupnumber{} --- \@academicyear}
2325  \renewcommand*{\footrulewidth}{1pt}
2326  \@extrainfo{}
2327 }
2328 ⟨/ex⟩
```

7.26   Auxiliary functions to typeset exams

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

```
2329 ⟨*ex⟩
2330 \newcounter{question}
2331 \setcounter{question}{0}
2332 \renewcommand*\thequestion{\@arabic\c@question}
2333 \newcommand{\question}[1]{
2334   \stepcounter{question}
2335   \thequestion.~#1%
2336 }
2337 ⟨/ex⟩
```

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

```
2338 ⟨*ex⟩
2339 \newcommand*{\questionweight}[1]{%
2340   \hspace{\fill}
2341   \begin{tabular}{|c|}
2342     \hline
2343     \small \uantwerpendocsprop{weightname}: #1\\
2344     \hline
2345   \end{tabular}\\
```

```
2346 }
2347 ⟨/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.

```
2348 ⟨*ex⟩
2349 \newcommand{\engdut}[2]{%
2350   \begin{tabular}{ccc}%
2351     \selectlanguage{english}%
2352     \begin{minipage}[t]{0.45\textwidth}%
2353       #1
2354     \end{minipage}%
2355   &~~~&
2356         \selectlanguage{dutch}%
2357         \begin{minipage}[t]{0.45\textwidth}%
2358           #2
2359         \end{minipage}%
2360   \end{tabular}
2361   \selectlanguage{english}%
2362 }
2363 ⟨/ex⟩
```

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

```
2364 ⟨*ex⟩
2365 \newcommand*\@mcsymbol{\square}
2366 \newcommand*\setmcsymbol[1]{\renewcommand\@mcsymbol{#1}}
2367 ⟨/ex⟩
```

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

```
2368 ⟨*ex⟩
2369 \newcommand\mc[1]{%
2370   \hfill\break\qquad\begin{tabular}{cc}
2371                     $\@mcsymbol$
2372                   &
2373                     \begin{minipage}[t]{0.9\textwidth}%
2374                       #1
2375                     \end{minipage}%
2376                   \end{tabular}
2377                 }
2378 ⟨/ex⟩
```

\engdutmc 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.

```
2379 ⟨*ex⟩
2380 \newcommand{\engdutmc}[2]{%
2381   \hfill\break\begin{tabular}{cccc}
2382             $\@mcsymbol$
```

```
2383                    &
2384                      \selectlanguage{english}%
2385                      \begin{minipage}[t]{0.42\textwidth}%
2386                        #1
2387                      \end{minipage}%
2388                    &---&
2389                        \selectlanguage{dutch}%
2390                        \begin{minipage}[t]{0.42\textwidth}%
2391                          #2
2392                        \end{minipage}%
2393                  \end{tabular}
2394                  \selectlanguage{english}%
2395              }
2396 ⟨/ex⟩
```

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

```
2397 ⟨*ex⟩
2398 \newcommand\insertsolutionspagepartial[1]{
2399   ~\relax
2400   \AddToShipoutPicture*{%
2401     \put(0,0){%
2402       \begin{tikzpicture}
2403         \clip (0,0) rectangle (21,#1);
2404 % \draw[densely dotted, step=0.5cm,black!20] (0.999,0.990) grid (20,1.5);
2405 \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
2406 \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
2407
2408 \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,27);
2409 \draw[densely dotted, step=0.5cm,black!20] (0.999,27) grid (16,28);
2410 \draw[densely dotted, step=0.5cm,black!20] (19.499,27) grid (20,28);
2411 \draw[densely dotted, step=0.5cm,black!20] (0.99,27.999) grid
2412 (20,28.5);
2413 \draw[ultra thick] (1,#1) -- (20,#1);
2414 \end{tikzpicture}
2415 }
2416 }%
2417 \clearpage
2418 \relax
2419 }
2420 ⟨/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').

```
2421 ⟨*ex⟩
2422 \newcommand\insertsolutionspage[1]{
2423   \clearpage
2424   \AddToShipoutPicture*{%
2425     \put(0,0){%
```

```
2426        \begin{tikzpicture}
2427          \clip (0,0) rectangle (21,29.5);
2428          \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
2429          \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
2430
2431          \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,28);
2432          \draw[densely dotted, step=0.5cm,black!20] (0.999,28) grid (16,28.5);
2433          \draw[densely dotted, step=0.5cm,black!20] (19.499,28) grid (20,28.5);
2434        \end{tikzpicture}
2435      }
2436      \put(120,150){\rotatebox{60}{\textcolor{watermark}{
2437          \fontsize{105}{130}\selectfont\textsf{#1}}
2438      }
2439    }
2440  }%
2441  ~\relax
2442 }
2443 ⟨/ex⟩
```

We add a lastpage label to the final page

```
2444 ⟨*ex⟩
2445 \AtEndDocument{
2446   \label{lastpage}
2447 }
2448 ⟨/ex⟩
2449 % \end{macrocode}
2450 %
2451 % \subsection{References}
2452 %    \begin{macrocode}
2453 ⟨*ct | bmt | pt | rp⟩
2454 \AtBeginDocument{
2455   \@ifpackageloaded{hyperref}{
2456     \hypersetup{
2457       breaklinks=true,
2458       colorlinks=true,
2459       citecolor=black,
2460       filecolor=black,
2461       linkcolor=black,
2462       pageanchor=true,
2463       pdfpagemode=UseOutlines,
2464       urlcolor=black,
2465       pdftitle={\@title},
2466       pdfsubject={\@subtitle},
2467       pdfauthor={\@author}
2468     }
2469   }{}
2470 }
2471 ⟨/ct | bmt | pt | rp⟩
```

Part II. The beamer theme

8   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
  \qquad\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}
```

```latex
  {What's on the menu?}
  {Bon app\'etit!}
  ~\\
  \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{l3qframe}


\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
      \bfseries frame option & \bfseries graphic on frame
      & \bfseries 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{uantwerpenicon[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]
  \qquad\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 te following syntax:\\[1ex]
  \qquad\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}

\begin{frame}[t]
  {Block material}
  {Nothing special}

  \vfill
  \begin{block}{This is a block}
```

```
      Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ac
      arcu est, vel posuere velit. In congue erat vel lorem ornare pretium.
    \end{block}
    \vfill
    \begin{exampleblock}{This is an example block}
      Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ac
      arcu est, vel posuere velit. In congue erat vel lorem ornare pretium.
    \end{exampleblock}
    \vfill
    \begin{alertblock}{This is an alert block}
      Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ac
      arcu est, vel posuere velit. In congue erat vel lorem ornare pretium.
    \end{alertblock}
    \vfill
\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\\
 (April 2024)

\end{frame}

\end{document}
</bmrug>

9   Implementation

9.0.1   Main beamer theme

```
2472 ⟨∗bmr⟩
2473 %      Copyright 2024 by Walter Daems <walter.daems@uantwerpen.be>
2474 %
2475 %      This file may be distributed and/or modified
2476 %
2477 %      1. under the LaTeX Project Public License and/or
2478 %      2. under the GNU Public License.
2479 %
2480 %      See the file doc/licenses/LICENSE for more details.
2481
2482 \newif\if@nofonts
2483 \@nofontsfalse
2484 \DeclareOption{nofonts}{\@nofontstrue}
2485
2486 \input{uantwerpencommonoptions.clo}
2487
2488 \ProcessOptions
2489
2490 \RequirePackage{uantwerpencolorlogoscheme}
2491
2492 \AtBeginDocument{
2493   \def\appropriatelogo{\logopos}
2494   \def\appropriateslidenumber{%
2495     \usebeamercolor{pageno in head/foot}%
```

```
2496        \insertframenumber/\inserttotalframenumber}%
2497 }
2498
2499 \mode<presentation>
2500
2501 \RequirePackage{tikz}
2502 \RequirePackage{graphicx}
2503 \RequirePackage{graphbox}
2504 \RequirePackage[export]{adjustbox}
2505 \RequirePackage{environ}
2506
2507 \setbeamersize{
2508   text margin left=.8cm,
2509   text margin right=.8cm
2510 }
2511
2512 \usecolortheme{uantwerpen}
2513 \usefonttheme{uantwerpen}
2514 \useinnertheme{uantwerpen}
2515 \useoutertheme{uantwerpen}
2516
2517 \setbeamertemplate{navigation symbols}{}
2518 \setbeamertemplate{blocks}[rounded][shadow=true]
2519
2520 \mode
2521 <all>
2522 ⟨/bmr⟩
```

9.0.2 Beamer color theme

```
2523 ⟨*bmrcolor⟩
2524 %       Copyright 2024 by Walter Daems <walter.daems@uantwerpen.be>
2525 %
2526 %       This file may be distributed and/or modified
2527 %
2528 %       1. under the LaTeX Project Public License and/or
2529 %       2. under the GNU Public License.
2530 %
2531 %       See the file doc/licenses/LICENSE for more details.
2532
2533 \mode<presentation>
2534
2535 \RequirePackage{uantwerpencolorlogoscheme}
2536
2537 %% define main color
2538 \setbeamercolor{palette primary}{fg=maincolor}
2539 \setbeamercolor{palette secondary}{fg=sidecolor}
2540 \setbeamercolor{palette tertiary}{fg=uauaside}
2541 \setbeamercolor{palette quaternary}{fg=uauamain}
2542
2543 \setbeamercolor{normal text}{fg=basecolor}
2544 \setbeamercolor{inverse normal text}{fg=white!95!maincolor}
2545 \setbeamercolor{alerted text}{fg=uauamain}
2546 \setbeamercolor{example text}{}
```

```
2547
2548 \setbeamercolor{heading}{fg=basecolor}
2549 \setbeamercolor{subheading}{fg=basecolor}
2550 \setbeamercolor{inverse heading}{fg=white}
2551 \setbeamercolor{inverse subheading}{fg=white!75!maincolor}
2552
2553 \setbeamercolor{block body}{bg=black!4}
2554 \setbeamercolor{block title}{bg=black!8,fg=maincolor}
2555 \setbeamercolor{block body example}{bg=black!4}
2556 \setbeamercolor{block title example}{bg=black!8}
2557 \setbeamercolor{block body alerted}{bg=black!4}
2558 \setbeamercolor{block title alerted}{bg=black!8}
2559
2560 \setbeamercolor{itemize item}{parent=normal text}
2561 \setbeamercolor{enumerate item}{parent=normal text}
2562 \setbeamercolor{itemize subitem}{parent=normal text}
2563 \setbeamercolor{enumerate subitem}{parent=normal text}
2564 \setbeamercolor{itemize subsubitem}{parent=normal text}
2565 \setbeamercolor{enumerate subsubitem}{parent=normal text}
2566
2567 \setbeamercolor{frametitle}{fg=maincolor}
2568 \setbeamercolor{framesubtitle}{fg=sidecolor}
2569 \setbeamercolor{inverse frametitle}{fg=white}
2570 \setbeamercolor{inverse framesubtitle}{fg=white!80!maincolor}
2571
2572 \setbeamercolor{title in title page}{fg=maincolor}
2573 \setbeamercolor{subtitle in title page}{fg=sidecolor}
2574 \setbeamercolor{author in title page}{fg=maincolor}
2575 \setbeamercolor{date in title page}{fg=sidecolor}
2576 \setbeamercolor{inverse title in title page}{fg=white}
2577 \setbeamercolor{inverse subtitle in title page}{fg=white!75!maincolor}
2578 \setbeamercolor{inverse author in title page}{fg=white}
2579 \setbeamercolor{inverse date in title page}{fg=white!75!maincolor}
2580
2581 \setbeamercolor{pageno in head/foot}{fg=basecolor}
2582 \setbeamercolor{inverse pageno in head/foot}{fg=white}
2583
2584 \setbeamercolor{section in toc}{fg=basecolor}
2585 \setbeamercolor{subsection in toc}{fg=basecolor}
2586 \setbeamercolor{section number projected}{fg=white,bg=basecolor}
2587 \setbeamercolor{subsection number projected}{fg=white,bg=basecolor}
2588
2589 \setbeamercolor{section title}{fg=maincolor}
2590 \setbeamercolor{section name}{fg=maincolor}
2591 \setbeamercolor{inverse section title}{fg=white}
2592 \setbeamercolor{inverse section name}{fg=white}
2593
2594 \setbeamercolor{subsection title}{fg=sidecolor}
2595 \setbeamercolor{subsection name}{fg=sidecolor}
2596 \setbeamercolor{inverse subsection title}{fg=white!75!maincolor}
2597 \setbeamercolor{inverse subsection name}{fg=white!75!maincolor}
2598 \mode
2599 <all>
2600 ⟨/bmrcolor⟩
```

9.0.3 Beamer font theme

```
2601 ⟨∗bmrfont⟩
2602 %       Copyright 2024 by Walter Daems
2603 %
2604 %       This file may be distributed and/or modified
2605 %
2606 %       1. under the LaTeX Project Public License and/or
2607 %       2. under the GNU Public License.
2608 %
2609 %       See the file doc/licenses/LICENSE for more details.
2610
2611 \usetikzlibrary{calc}
2612
2613 \if@nofonts
2614 \else
2615 \RequirePackage{iftex}
2616   % Uncomment the following line if in MiKTeX you get the error
2617   % message that \ifluatex is already defined.
2618   % You first option is to update all your packages both in user as in
2619   % admin mode to fix your setup.
2620   % Your second option is to avoid the warning uncommenting the
2621   % following line:
2622   % \let\ifluatex\relax
2623   \iftutex
2624     \usepackage{cmbright}
2625     \usefonttheme{serif}
2626     \usepackage{fontspec}
2627     \setmainfont
2628     [UprightFont = *,
2629      BoldFont = *b,
2630      ItalicFont = *i,
2631      BoldItalicFont = *z,
2632     ]
2633     {calibri}
2634     \usepackage{sansmathaccent}
2635   \fi
2636 \fi
2637 \usepackage{bm}
2638
2639 \mode<presentation>
2640
2641 \setbeamerfont{normal text}{} % ignored currently
2642 \setbeamerfont{alerted text}{}
2643 \setbeamerfont{example text}{}
2644
2645 \setbeamerfont{structure}{}
2646 \setbeamerfont{tiny structure}{size=\tiny}
2647
2648 \setbeamerfont{title}{size=\large,parent=structure}
2649 \setbeamerfont{title in head/foot}{}
2650 \setbeamerfont{title in sidebar}{size=\tiny}
2651
2652 \setbeamerfont{pageno in head/foot}{size=\tiny}
```

```
2653
2654 \setbeamerfont{subtitle}{size=\small,parent=title}
2655
2656 \setbeamerfont{author}{}
2657 \setbeamerfont{author in head/foot}{}
2658 \setbeamerfont{author in sidebar}{size=\tiny}
2659
2660 \setbeamerfont{date}{}
2661 \setbeamerfont{date in head/foot}{}
2662 \setbeamerfont{date in sidebar}{}
2663
2664 \setbeamerfont{part name}{size=\LARGE}
2665 \setbeamerfont{part title}{size=\LARGE,parent=title}
2666
2667 \setbeamerfont{section name}{size=\Large}
2668 \setbeamerfont{section title}{size=\Large,parent=title}
2669
2670 \setbeamerfont{section in toc}{parent=structure}
2671 \setbeamerfont{section in toc shaded}{parent=section in toc}
2672 \setbeamerfont{section in head/foot}{}
2673 \setbeamerfont{section in sidebar}{size=\tiny}
2674 \setbeamerfont{section number projected}
2675   {size=\small,parent={section in toc,projected text}}
2676
2677 \setbeamerfont{subsection name}{size=\large}
2678 \setbeamerfont{subsection title}{size=\large,parent=title}
2679
2680 \setbeamerfont{subsection in toc}{}
2681 \setbeamerfont{subsection in toc shaded}{parent=subsection in toc}
2682 \setbeamerfont{subsection in head/foot}{}
2683 \setbeamerfont{subsection in sidebar}{}
2684
2685 \setbeamerfont{subsubsection in toc}{size=\footnotesize}
2686 \setbeamerfont{subsubsection in toc shaded}{parent=subsubsection in toc}
2687 \setbeamerfont{subsubsection in head/foot}{}
2688 \setbeamerfont{subsubsection in sidebar}{}
2689
2690 \setbeamerfont{headline}{parent={tiny structure}}
2691 \setbeamerfont{footline}{parent={tiny structure}}
2692
2693 \setbeamerfont{frametitle}
2694   {parent=structure,size=\renewcommand*{\baselinestretch}{0.85}\LARGE\bfseries}
2695 \setbeamerfont{framesubtitle}{parent=frametitle,size=\normalsize\bfseries}
2696
2697 \setbeamerfont{caption}{size=\small}
2698 \setbeamerfont{caption name}{parent={structure,caption}}
2699
2700 \setbeamerfont{button}{size=\tiny}
2701
2702 \setbeamerfont{block body}{size=\scriptsize}
2703 \setbeamerfont{block body alerted}{parent={block body}}
2704 \setbeamerfont{block body example}{parent={block body}}
2705 \setbeamerfont{block title}{size=\small,series=\bfseries,parent={structure,block body}}
2706 \setbeamerfont{block title alerted}{parent={block title,alerted text}}
```

```
2707 \setbeamerfont{block title example}{parent={block title,example text}}
2708
2709 \setbeamerfont{item}{parent=structure}
2710 \setbeamerfont{subitem}{parent=item}
2711 \setbeamerfont{subsubitem}{parent=subitem}
2712
2713 \setbeamerfont{item projected}{size=\tiny,parent={item,projected text}}
2714 \setbeamerfont{subitem projected}{parent=item projected}
2715 \setbeamerfont{subsubitem projected}{parent=subitem projected}
2716
2717 \setbeamerfont{itemize item}{parent=item}
2718 \setbeamerfont{itemize subitem}{parent=subitem}
2719 \setbeamerfont{itemize subsubitem}{parent=subsubitem}
2720
2721 \setbeamerfont{enumerate item}{parent=item}
2722 \setbeamerfont{enumerate subitem}{parent=subitem}
2723 \setbeamerfont{enumerate subsubitem}{parent=subsubitem}
2724
2725 \setbeamerfont{itemize/enumerate body}{}
2726 \setbeamerfont{itemize/enumerate subbody}{size=\small}
2727 \setbeamerfont{itemize/enumerate subsubbody}{size=\footnotesize}
2728
2729 \setbeamerfont{description item}{parent=item}
2730
2731 \setbeamerfont{projected text}{parent={tiny structure}}
2732
2733 \setbeamerfont{abstract}{size=\small}
2734 \setbeamerfont{abstract title}{parent={abstract,structure},size=\normalsize}
2735
2736 \setbeamerfont{verse}{family=\rmfamily,shape=\itshape}
2737
2738 \setbeamerfont{quotation}{shape=\itshape}
2739 \setbeamerfont{quote}{parent=quotation}
2740
2741 \setbeamerfont{note page}{size=\small}
2742
2743 \mode
2744 <all>
2745 ⟨/bmrfont⟩
```

9.0.4 Beamer inner theme

```
2746 ⟨*bmrinner⟩
2747 % Copyright 2024 by Walter Daems <walter.daems@uantwerpen.be>
2748 %
2749 % This file may be distributed and/or modified
2750 %
2751 % 1. under the LaTeX Project Public License and/or
2752 % 2. under the GNU Public License.
2753 %
2754 % See the file doc/licenses/LICENSE for more details.
2755
2756 \mode<presentation>
2757
```

```
2758 \setlength\parskip{0.5\baselineskip}
2759 \setlength\parindent{0em}
2760
2761 % use square (can also be circle or ball
2762 \setbeamertemplate{sections/subsections in toc}[square]
2763 \setbeamertemplate{itemize items}[square]
2764
2765 %\setbeamertemplate{description item}[align left]
2766
2767 \newif\if@noround
2768 \@noroundfalse
2769
2770 \newcommand*\uantwerpenleftshape[3][]{
2771   \newcommand\mycradius{0.05*(\getlength{\paperheight}-1.6)}%
2772   \coordinate (bl) at #2;
2773   \coordinate (tr) at #3;
2774   \if@noround
2775   \path[#1] (bl) rectangle (tr);
2776   \else
2777   \path[#1] (bl|-tr) -- (tr) -- (bl-|tr) -- ($(bl)+({\mycradius},0)$)
2778   arc(-90:-180:{\mycradius}) -- cycle;
2779   \fi
2780 }
2781 \newcommand*\uantwerpenrightshape[3][]{
2782   \newcommand\mycradius{0.05*(\getlength{\paperheight}-1.6)}%
2783   \coordinate (bl) at #2;
2784   \coordinate (tr) at #3;
2785   \if@noround
2786   \path[#1] (bl) rectangle (tr);
2787   \else
2788   \path[#1] (bl|-tr) -- (tr) -- ($(bl-|tr)+(0,{\mycradius})$)
2789   arc(0:-90:{\mycradius}) -- (bl) -- cycle;
2790   \fi
2791 }
2792
2793 \newcommand*\darken[2][0.5]{%
2794   \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2795     \node (a) {#2};
2796     \fill[fill=black,opacity=#1] (a.south west) rectangle (a.north east);
2797   \end{tikzpicture}
2798 }
2799
2800 \newcommand\uantwerpencallout[4][]{
2801   \begin{tikzpicture}
2802     \uantwerpenleftshape[fill=black,fill opacity=0.0,text opacity=1,text=white,#1]{({-
   #2/2},-{#3/2})}{({#2/2},{#3/2})}
2803     \node[align=left,anchor=center] at (0,0) { \callout\\ #4 };
2804   \end{tikzpicture}
2805 }
2806
2807 \newcommand\callout[1][scale=0.70711]{
2808   \begin{tikzpicture}[#1]
2809     \fill[maincolor] (0.4,0) -- (0.5,0) -- (0.75,-0.15) -- (0.75,0) --
2810     (0.9,0) arc(-90:0:0.1) -- (1,0.65) arc(0:90:0.1) -- (0.1,0.75) arc
```

```
2811      (90:180:0.1) -- (0,0.1) arc(-180:-90:0.1) -- cycle;
2812      \foreach \x in {0.35,0.7} {
2813        \begin{scope}[shift={(\x,0.425)},scale=0.25]
2814          \fill[white] (0,0) circle[radius=0.5];
2815          \fill[white] (0.5,0) arc(0:-90:1) --
2816          (-0.5,-0.725) arc(-90:0:0.725) -- cycle;
2817        \end{scope}
2818      }
2819    \end{tikzpicture}
2820 }
2821
2822 \newcommand*\uantwerpenicon[1][scale=1]{
2823    \includegraphics[#1]{\iconfile}
2824 }
2825
2826 \newcommand\heading[1]{\par{\usebeamercolor{\maybeinverse heading}\color{fg}{\small\bfseries
2827 \newcommand\subheading[1]{\par{
2828      \usebeamercolor{\maybeinverse
2829        subheading}\color{fg}{\footnotesize\it\bfseries #1~}}}
2830
2831 \mode
2832 <all>
2833 ⟨/bmrinner⟩
```

9.0.5   Beamer outer theme

```
2834 ⟨*bmrouter⟩
2835 % Copyright 2024 by Walter Daems <walter.daems@uantwerpen.be>
2836 %
2837 % This file may be distributed and/or modified
2838 %
2839 % 1. under the LaTeX Project Public License and/or
2840 % 2. under the GNU Public License.
2841 %
2842 % See the file doc/licenses/LICENSE for more details.
2843
2844 \mode<presentation>
2845
2846 \newcommand*\getlength[1]{\strip@pt#1/28.45274}
2847 \newcommand*\pw{\getlength{\paperwidth}}%
2848 \newcommand*\ph{\getlength{\paperheight}}%
2849
2850 \newif\if@rhtext
2851 \@rhtextfalse
2852 \newif\if@lhtext
2853 \@lhtextfalse
2854 \newif\if@rqtext
2855 \@rqtextfalse
2856 \newif\if@lqtext
2857 \@lqtextfalse
2858 \newif\if@bhtext
2859 \@bhtextfalse
2860 \gdef\maybeinverse{}
2861
```

```
2862 \define@key{beamerframe}{noround}[true]{
2863   \expandafter\csname @noround#1\endcsname
2864 }
2865
2866 \define@key{beamerframe}{normal}[true]{
2867   \setbeamertemplate{title page}[main]
2868   \setbeamertemplate{section page}[main]%
2869   \setbeamertemplate{subsection page}[main]%
2870   \setbeamertemplate{background canvas}[normal]
2871   \gdef\maybeinverse{}
2872 }
2873
2874 \mode<handout|trans>
2875
2876 \define@key{beamerframe}{negativefill}[true]{
2877 }
2878
2879 \define@key{beamerframe}{negative}[true]{
2880 }
2881
2882 \mode
2883 <all>
2884
2885 \mode<beamer|second>
2886
2887 \define@key{beamerframe}{negativefill}[true]{
2888   \gdef\maybeinverse{inverse }%
2889   \usebeamercolor[fg]{\maybeinverse normal text}%
2890   \setbeamertemplate{title page}[negativefill]
2891   \setbeamertemplate{section page}[negative]%
2892   \setbeamertemplate{subsection page}[negative]%
2893   \setbeamertemplate{background canvas}[negativefill]%
2894 }
2895
2896 \define@key{beamerframe}{negative}[true]{
2897   \gdef\maybeinverse{inverse }%
2898   \usebeamercolor[fg]{\maybeinverse normal text}%
2899   \setbeamertemplate{title page}[negative]
2900   \setbeamertemplate{section page}[negative]%
2901   \setbeamertemplate{subsection page}[negative]%
2902   \setbeamertemplate{background canvas}[negative]%
2903 }
2904
2905 \mode
2906 <all>
2907
2908 \define@key{beamerframe}{graphicfill}[{\includegraphics[scale=0.1,min
2909   width=\paperwidth,min height=\paperheight]{Images/uantwerpen-01.jpg}}]{
2910   \gdef\maybeinverse{inverse }%
2911   \usebeamercolor[fg]{\maybeinverse normal text}%
2912   \setbeamertemplate{background canvas}[graphicfill]{#1}
2913 }
2914
2915 \define@key{beamerframe}{graphic}[{\includegraphics[scale=0.1,min
```

```
2916    width=\textwidth,min height=\textheight]{Images/uantwerpen-02.jpg}}]{
2917    \gdef\maybeinverse{inverse }%
2918    \usebeamercolor[fg]{\maybeinverse normal text}%
2919    \setbeamertemplate{background canvas}[graphic]{#1}
2920 }
2921
2922 \define@key{beamerframe}{lhgraphic}
2923    [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2924      height=\textheight]{Images/uantwerpen-03.jpg}}]{
2925    \gdef\maybeinverse{}%
2926    \setbeamertemplate{background canvas}[lhgraphic]{#1}
2927    \@rhtexttrue
2928 }
2929
2930 \define@key{beamerframe}{lqgraphic}
2931    [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2932      height=\textheight]{Images/uantwerpen-04.jpg}}]{
2933    \gdef\maybeinverse{}%
2934    \setbeamertemplate{background canvas}[lqgraphic]{#1}
2935    \@rqtexttrue
2936 }
2937
2938 \define@key{beamerframe}{rhgraphic}
2939    [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2940      height=\textheight]{Images/uantwerpen-05.jpg}}]{
2941    \gdef\maybeinverse{}%
2942    \setbeamertemplate{background canvas}[rhgraphic]{#1}
2943    \@lhtexttrue
2944 }
2945
2946 \define@key{beamerframe}{rqgraphic}
2947    [{\includegraphics[scale=0.5,min width=0.5\paperwidth,min
2948      height=\textheight]{Images/uantwerpen-05.jpg}}]{
2949    \gdef\maybeinverse{}%
2950    \setbeamertemplate{background canvas}[rqgraphic]{#1}
2951    \@lqtexttrue
2952 }
2953
2954 \define@key{beamerframe}{thgraphic}
2955    [{\includegraphics[scale=0.5,min width=\paperwidth,min
2956      height=0.5\textheight]{Images/uantwerpen-06.jpg}}]{
2957    \gdef\maybeinverse{}%
2958    \setbeamertemplate{background canvas}[thgraphic]{#1}
2959    \@bhtexttrue
2960 }
2961
2962 \define@key{beamerframe}{bhgraphic}
2963    [{\includegraphics[scale=0.5,min width=\paperwidth,min
2964      height=0.5\textheight]{Images/uantwerpen-07.jpg}}]{
2965    \gdef\maybeinverse{}%
2966    \setbeamertemplate{background canvas}[bhgraphic]{#1}
2967 }
2968
2969 \BeforeBeginEnvironment{frame}{%
```

```
2970    \gdef\maybeinverse{}%
2971    \setbeamertemplate{title page}[main]%
2972    \setbeamertemplate{section page}[main]%
2973    \setbeamertemplate{subsection page}[main]%
2974    \setbeamertemplate{background canvas}[normal]%
2975    \usebeamercolor[fg]{normal text}%
2976 }
2977
2978 % The following does not work as \end{frame} is never executed by
2979 % beamer!
2980 % \AtEndEnvironment{frame}{\gdef\maybeinverse{}}
2981
2982 \NewEnviron{rhframe}[3][]{%
2983    \begin{frame}[#1]{#2}{#3}
2984      \begin{minipage}[t]{0.525\textwidth}
2985        ~
2986      \end{minipage}
2987      \begin{minipage}[t]{0.465\textwidth}
2988        \BODY
2989      \end{minipage}
2990    \end{frame}
2991 }
2992
2993 \NewEnviron{r3qframe}[3][]{%
2994    \begin{frame}[#1]{#2}{#3}
2995      \begin{minipage}[t]{0.23\textwidth}
2996        ~
2997      \end{minipage}
2998      \begin{minipage}[t]{0.76\textwidth}
2999        \BODY
3000      \end{minipage}
3001    \end{frame}
3002 }
3003
3004 \NewEnviron{lhframe}[3][]{%
3005    \begin{frame}[#1]{#2}{#3}
3006      \begin{minipage}[t]{0.465\textwidth}
3007        \BODY
3008      \end{minipage}
3009      \begin{minipage}[t]{0.525\textwidth}
3010        ~
3011      \end{minipage}
3012    \end{frame}
3013 }
3014
3015 \NewEnviron{l3qframe}[3][]{%
3016    \begin{frame}[#1]{#2}{#3}
3017      \begin{minipage}[t]{0.77\textwidth}
3018        \BODY
3019      \end{minipage}
3020      \begin{minipage}[t]{0.22\textwidth}
3021        ~
3022      \end{minipage}
3023    \end{frame}
```

```
3024 }
3025
3026 \NewEnviron{bhframe}[3][]{%
3027   \begin{frame}[#1]{#2}{#3}
3028       \BODY
3029   \end{frame}
3030 }
3031
3032 \NewEnviron{thframe}[3][]{%
3033   \begin{frame}[#1]{#2}{#3}
3034       \BODY
3035   \end{frame}
3036 }
3037
3038 %%%%%%%%%
3039 % Order:
3040 % 1. option is executed
3041 % 2. frametitle is typeset
3042 % 3. canvas is typeset
3043 % 4. frame is typeset
3044 %%%%%%%%%
3045
3046 \def\ps@uantwerpen@titlepage{%
3047   \setbeamercolor{title in title page}{parent=palette primary}
3048   \setbeamertemplate{footline}[empty]
3049   \@nameuse{ps@uantwerpen}
3050 }
3051
3052 \defbeamertemplate*{background canvas}{negativefill}[1]
3053 {%
3054   \gdef\appropriatelogo{\logomonowhite}%
3055   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3056     \insertframenumber/\inserttotalframenumber}%
3057   \color{maincolor}\vrule width\paperwidth height\paperheight
3058 }
3059
3060 \defbeamertemplate*{background canvas}{negative}[1]
3061 {%
3062   \gdef\appropriatelogo{\logopos}%
3063   \gdef\appropriateslidenumber{}%
3064   \begin{tikzpicture}
3065     \clip (0,0) rectangle (\pw,\ph);
3066     \uantwerpenleftshape[fill=maincolor]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
3067   \end{tikzpicture}
3068 }
3069
3070 \defbeamertemplate*{background canvas}{graphicfill}[1]
3071 {%
3072   \gdef\appropriatelogo{\logoneg}%
3073   \gdef\appropriateslidenumber{}%
3074   \begin{tikzpicture}
3075     \clip (0,0) rectangle (\pw,\ph);
3076     \node[align=center] at  (0.5*\pw,0.5*\ph) {#1};
3077   \end{tikzpicture}%
```

```
3078 }
3079
3080 \defbeamertemplate*{background canvas}{graphic}[1]
3081 {%
3082   \gdef\appropriatelogo{\logopos}%
3083   \gdef\appropriateslidenumber{}%
3084   \begin{tikzpicture}
3085     \clip (0,0) rectangle (\pw,\ph);
3086     \begin{scope}
3087       \uantwerpenleftshape[clip]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
3088       \node[align=center] at  (0.5*\pw,0.5*\ph) {#1};
3089     \end{scope}
3090   \end{tikzpicture}%
3091 }
3092
3093 \defbeamertemplate*{background canvas}{lhgraphic}[1]
3094 {%
3095   \gdef\maybeinverse{}%
3096   \gdef\appropriatelogo{\logopos}%
3097   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3098     \insertframenumber/\inserttotalframenumber}%
3099   \pgfmathsetmacro\dx{0.5*\pw-1.2}%
3100   \pgfmathsetmacro\dy{\ph-1.6}%
3101   \begin{tikzpicture}
3102     \clip (0,0) rectangle (\pw,\ph);
3103     \begin{scope}
3104       \uantwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
3105       \node[align=center] at  (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3106     \end{scope}
3107   \end{tikzpicture}
3108   \@tempswatrue
3109 }
3110
3111 \defbeamertemplate*{background canvas}{lqgraphic}[1]
3112 {%
3113   \gdef\maybeinverse{}%
3114   \gdef\appropriatelogo{\logopos}%
3115   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3116     \insertframenumber/\inserttotalframenumber}%
3117   \pgfmathsetmacro\dx{0.25*\pw-1.2}%
3118   \pgfmathsetmacro\dy{\ph-1.6}%
3119   \begin{tikzpicture}
3120     \clip (0,0) rectangle (\pw,\ph);
3121     \begin{scope}
3122       \uantwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
3123       \node[align=center] at  (0.8+0.5*\dx,0.8+0.5*\dy)
3124       {#1};
3125     \end{scope}
3126   \end{tikzpicture}
3127   \@tempswatrue
3128 }
3129
3130 \defbeamertemplate*{background canvas}{rhgraphic}[1]
3131 {%
```

```
3132    \gdef\maybeinverse{}%
3133    \gdef\appropriatelogo{\logopos}%
3134    \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3135      \insertframenumber/\inserttotalframenumber}%
3136    \pgfmathsetmacro\dx{0.5*\pw-1.2}%
3137    \pgfmathsetmacro\dy{\ph-1.6}%
3138    \begin{tikzpicture}
3139      \clip (0,0) rectangle (\pw,\ph);
3140      \begin{scope}[shift={(0.5*\pw,0)}]
3141        \uantwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
3142        \node[align=center] at  (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3143      \end{scope}
3144    \end{tikzpicture}
3145    \@tempswatrue
3146 }
3147
3148 \defbeamertemplate*{background canvas}{rqgraphic}[1]
3149 {%
3150    \gdef\maybeinverse{}%
3151    \gdef\appropriatelogo{\logopos}%
3152    \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3153      \insertframenumber/\inserttotalframenumber}%
3154    \pgfmathsetmacro\dx{0.25*\pw-1.2}%
3155    \pgfmathsetmacro\dy{\ph-1.6}%
3156    \begin{tikzpicture}
3157      \clip (0,0) rectangle (\pw,\ph);
3158      \begin{scope}[shift={(0.75*\pw,0)}]
3159        \uantwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
3160        \node[align=center] at  (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3161      \end{scope}
3162    \end{tikzpicture}
3163    \@tempswatrue
3164 }
3165
3166 \defbeamertemplate*{background canvas}{thgraphic}[1]
3167 {%
3168    \gdef\maybeinverse{}%
3169    \gdef\appropriatelogo{\logopos}%
3170    \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3171      \insertframenumber/\inserttotalframenumber}%
3172    \pgfmathsetmacro\dx{\pw-1.6}%
3173    \pgfmathsetmacro\dy{0.5*\ph-0.8}%
3174    \begin{tikzpicture}
3175      \clip (0,0) rectangle (\pw,\ph);
3176      \begin{scope}[shift={(0,0.5*\ph)}]
3177        \uantwerpenleftshape[clip] {(0.8,0)}{(0.8+\dx,\dy)}
3178        \node[align=center] at  (0.8+0.5*\dx,0.5*\dy) {#1};
3179      \end{scope}
3180    \end{tikzpicture}
3181    \@tempswatrue
3182 }
3183
3184 \defbeamertemplate*{background canvas}{bhgraphic}[1]
3185 {%
```

```
3186    \gdef\maybeinverse{}%
3187    \gdef\appropriatelogo{\logopos}%
3188    \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3189      \insertframenumber/\inserttotalframenumber}%
3190    \pgfmathsetmacro\dx{\pw-1.6}%
3191    \pgfmathsetmacro\dy{0.5*\ph-0.8}%
3192    \begin{tikzpicture}
3193      \clip (0,0) rectangle (\pw,\ph);
3194      \begin{scope}[shift={(0,0.8)}]
3195      \uantwerpenleftshape[clip] {(0.8,0)}{(0.8+\dx,\dy)}
3196      \node[align=center] at  (0.8+0.5*\dx,0.5*\dy) {#1};
3197      \end{scope}
3198    \end{tikzpicture}
3199    \@tempswatrue
3200 }
3201
3202
3203 \defbeamertemplate*{background canvas}{normal}
3204 {%
3205    \gdef\maybeinverse{}%
3206    \gdef\appropriatelogo{\logopos}%
3207    \gdef\appropriateslidenumber{\usebeamercolor{pageno in
3208       head/foot}\insertframenumber/\inserttotalframenumber}%
3209 }
3210
3211
3212 \defbeamertemplate*{title page}{main}[1][]
3213 {%
3214    \thispagestyle{uantwerpen@titlepage}%
3215    \begin{tikzpicture}
3216      \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3217      \node[anchor=center] at  (0.5*\textwidth,0.75*\ph)
3218      {\includegraphics[height=.9\logounitheight]{\logopos}};
3219      \node[
3220      text width=0.98\textwidth,
3221      text=basecolor,
3222      align=center] at (0.5*\textwidth,0.5*\ph) {
3223        \begin{beamercolorbox}[wd=\textwidth,center]{title in title page}
3224          \LARGE\bfseries\inserttitle\\[1ex]
3225          \usebeamercolor[fg]{subtitle in title page}
3226          \color{fg}\large\bfseries\insertsubtitle
3227        \end{beamercolorbox}
3228      };
3229      \node[
3230      text width=0.98\textwidth,
3231      color=basecolor,
3232      align=center] at (0.5*\textwidth,0.25*\ph) {
3233        \begin{beamercolorbox}[wd=\textwidth,center]{author in title page}
3234          \large\bfseries\insertauthor
3235        \end{beamercolorbox}
3236      };
3237      \node[
3238      text width=0.98\textwidth,
3239      color=basecolor,
```

125

```
3240      align=center] at (0.5*\textwidth,0.15*\ph) {
3241        \begin{beamercolorbox}[wd=\textwidth,center]{date in title page}
3242          \normalsize\bfseries\insertdate
3243        \end{beamercolorbox}
3244      };
3245    \end{tikzpicture}
3246 }
3247
3248 \defbeamertemplate*{title page}{negative}[1][]
3249 {
3250    \begin{tikzpicture}
3251      \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3252      \node[
3253      text width=0.98\textwidth,
3254      align=center] at (0.5*\textwidth,0.5*\ph) {
3255        \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
3256          \LARGE\bfseries\inserttitle\\[1ex]
3257          \usebeamercolor[fg]{\maybeinverse subtitle in title page}
3258          \color{fg}\large\bfseries\insertsubtitle
3259        \end{beamercolorbox}
3260      };
3261      \node[
3262      text width=0.98\textwidth,
3263      align=center,] at (0.5*\textwidth,0.25*\ph) {
3264        \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
3265          \large\bfseries\insertauthor
3266        \end{beamercolorbox}
3267      };
3268      \node[
3269      text width=0.98\textwidth,
3270      color=basecolor,
3271      align=center] at (0.5*\textwidth,0.15*\ph) {
3272        \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
3273          \normalsize\bfseries\insertdate
3274        \end{beamercolorbox}
3275      };
3276    \end{tikzpicture}
3277 }
3278
3279 \defbeamertemplate*{title page}{negativefill}[1][]
3280 {
3281    \thispagestyle{uantwerpen@titlepage}
3282    \begin{tikzpicture}
3283      \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3284      \node[anchor=center] at  (0.5*\textwidth,0.75*\ph)
3285      {\includegraphics[height=.9\logounitheight]{\logomonowhite}};
3286      \node[
3287      draw,rectangle,
3288      text width=0.98\textwidth,
3289      color=maincolor,
3290      align=center] at (0.5*\textwidth,0.5*\ph) {
3291        \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
3292          \LARGE\bfseries\inserttitle\\[1ex]
3293          \usebeamercolor[fg]{inverse subtitle in title page}
```

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```
3294        \color{fg}\large\bfseries\insertsubtitle
3295      \end{beamercolorbox}
3296    };
3297    \node[
3298    text width=0.98\textwidth,
3299    color=maincolor,
3300    align=center] at (0.5*\textwidth,0.25*\ph) {
3301      \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
3302        \large\bfseries\insertauthor
3303      \end{beamercolorbox}
3304    };
3305    \node[
3306    text width=0.98\textwidth,
3307    color=basecolor,
3308    align=center] at (0.5*\textwidth,0.15*\ph) {
3309      \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
3310        \normalsize\bfseries\insertdate
3311      \end{beamercolorbox}
3312    };
3313  \end{tikzpicture}
3314 }
3315
3316 \defbeamertemplate*{section page}{main}[1][]
3317 {%
3318  \begin{tikzpicture}
3319    \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3320    \node[
3321    text width=0.98\textwidth,
3322    text=basecolor,
3323    align=center] at (0.5*\textwidth,0.55*\ph) {
3324      \begin{beamercolorbox}[wd=\textwidth,center]{section title}
3325        \Large\bfseries\insertsectionnumber.~\insertsection
3326      \end{beamercolorbox}
3327    };
3328  \end{tikzpicture}
3329 }
3330
3331 \defbeamertemplate*{subsection page}{main}[1][]
3332 {%
3333  \begin{tikzpicture}
3334    \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3335    \node[
3336    text width=0.98\textwidth,
3337    text=basecolor,
3338    align=center] at (0.5*\textwidth,0.55*\ph) {
3339      \begin{beamercolorbox}[wd=\textwidth,center]{section title}
3340        \Large\bfseries\insertsectionnumber.~\insertsection
3341      \end{beamercolorbox}
3342    };
3343    \node[
3344    text width=0.98\textwidth,
3345    text=basecolor,
3346    align=center] at (0.5*\textwidth,0.45*\ph) {
3347      \begin{beamercolorbox}[wd=\textwidth,center]{subsection title}
```

```
3348        \large\bfseries\insertsubsection
3349      \end{beamercolorbox}
3350    };
3351    \end{tikzpicture}
3352 }
3353
3354 \defbeamertemplate*{section page}{negative}[1][]
3355 {
3356    \begin{tikzpicture}
3357      \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3358      \node[
3359      text width=0.98\textwidth,
3360      text=basecolor,
3361      align=center] at (0.5*\textwidth,0.55*\ph) {
3362        \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
3363          \Large\bfseries\insertsectionnumber.~\insertsection
3364        \end{beamercolorbox}
3365      };
3366    \end{tikzpicture}
3367 }
3368
3369 \defbeamertemplate*{subsection page}{negative}[1][]
3370 {
3371    \begin{tikzpicture}
3372      \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3373      \node[
3374      text width=0.98\textwidth,
3375      text=basecolor,
3376      align=center] at (0.5*\textwidth,0.55*\ph) {
3377        \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
3378          \Large\bfseries\insertsectionnumber.~\insertsection
3379        \end{beamercolorbox}
3380      };
3381      \node[
3382      text width=0.98\textwidth,
3383      text=basecolor,
3384      align=center] at (0.5*\textwidth,0.45*\ph) {
3385        \begin{beamercolorbox}[wd=\textwidth,center]{inverse subsection title}
3386          \large\bfseries\insertsubsection
3387        \end{beamercolorbox}
3388      };
3389    \end{tikzpicture}
3390 }
3391
3392 \defbeamertemplate*{footline}{empty}
3393 {
3394 }
3395
3396 \defbeamertemplate*{footline}{normal}
3397 {%
3398    \leavevmode%
3399    \hbox{\begin{beamercolorbox}
3400        [wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,left,leftskip=.8cm
3401        plus1fill]{author in head/foot}%
```

```
3402        \includegraphics[height=0.35\logounitheight]{\appropriatelogo}
3403        \hskip0pt plus 1filll ~
3404    \end{beamercolorbox}%
3405    \begin{beamercolorbox}[wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,
3406      right,rightskip=.8cm plus1fill]{\maybeinverse pageno in head/foot}%
3407      \usebeamerfont{pageno in head/foot}~\hskip0pt plus 1filll
3408      \appropriateslidenumber
3409    \end{beamercolorbox}}%
3410    \vskip0pt%
3411 }
3412
3413 \defbeamertemplate*{frametitle}{empty}
3414 {
3415 }
3416
3417 \defbeamertemplate*{frametitle}{normal}
3418 {%
3419    \vskip0.75cm%
3420    \if@rhtext%
3421    \@tempdima=0.5\textwidth%
3422    \@tempdimb=0.5\textwidth%
3423    \advance\@tempdima by0.5\beamer@leftmargin%
3424    \advance\@tempdimb by-0.5\beamer@leftmargin%
3425    \else%
3426    \if@rqtext%
3427    \@tempdima=0.23\textwidth%
3428    \@tempdimb=0.77\textwidth%
3429    \else%
3430    \if@lhtext%
3431    \@tempdima=0em%
3432    \@tempdimb=0.5\textwidth%
3433    \advance\@tempdimb by-0.5\beamer@leftmargin%
3434    \else%
3435    \if@lqtext%
3436    \@tempdima=0em%
3437    \@tempdimb=0.77\textwidth%
3438    \else%
3439    \if@bhtext%
3440    \@tempdima=0em%
3441    \@tempdimb=\textwidth%
3442    \vskip0.5\textheight%
3443    \else%
3444    \@tempdima=0em%
3445    \@tempdimb=\textwidth%
3446    \fi%
3447    \fi%
3448    \fi%
3449    \fi%
3450    \fi%
3451    \hskip\@tempdima%
3452    \begin{beamercolorbox}[wd=\@tempdimb]{\maybeinverse frametitle}%
3453      \usebeamerfont{frametitle}\insertframetitle\\[0.5ex]%
3454      \ifx\insertframesubtitle\@empty%
3455      {\usebeamerfont{framesubtitle}%
```

```
3456        \usebeamercolor[fg]{\maybeinverse framesubtitle}~\strut\par}%
3457        \vskip-1ex%
3458        \else%
3459        {\usebeamerfont{framesubtitle}%
3460          \usebeamercolor[fg]{\maybeinverse framesubtitle}%
3461          \insertframesubtitle\strut\par}%
3462        \fi%
3463        \if@tempswa\else\vskip-.3cm\fi% set inside beamercolorbox... evil here...
3464     \end{beamercolorbox}%
3465 }
3466
3467 \newdimen\xloleft
3468 \newdimen\yloleft
3469 \newdimen\xupright
3470 \newdimen\yupright
3471 \newdimen\xcurrent
3472 \newdimen\ycurrent
3473 \newcommand*\extractloleft[1]{\path  (#1);\pgfgetlastxy{\xloleft}{\yloleft};}
3474 \newcommand*\extractupright[1]{\path (#1);\pgfgetlastxy{\xupright}{\yupright};}
3475 \newcommand*\extractcurrent[1]{\path (#1);\pgfgetlastxy{\xcurrent}{\ycurrent};}
3476
3477 \DeclareRobustCommand\place{\@ifnextchar[{\@place}{\@place[align=left] }}
3478 \def\@place[#1] at (#2,#3)#4{
3479    \begin{tikzpicture}[overlay,remember picture]
3480      \extractloleft{$(current page.south west)$}
3481      \extractupright{$(current page.north east)$}
3482      \node[#1] at
3483      ({\xloleft*(1-#2)+\xupright*#2},{\yloleft*(1-#3)+\yupright*#3}) {#4};
3484    \end{tikzpicture}
3485 }
3486
3487 \mode
3488 <all>
3489 ⟨/bmrouter⟩
```

Change History

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

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