

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

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

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

^{*}This document corresponds to `uantwerpendocs` 4.5, dated 2023/04/10.

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

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

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

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

Using this package, requires the following packages:

- the `adjustbox` package
- the `babel` package
- the `background` package
- the `color` package
- the `environ` package
- the `eso-pic` package
- the `etooblox` package
- the `expl3` package
- the `fancyhdr` package
- the `geometry` package
- the `graphicx` package
- the `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 `uantwpendocs` package will be slowly refactored to $\text{\LaTeX}3$ to prepare for a package that is easier to maintain. However, the $\text{\LaTeX}3$ constructs are never exposed to the user of the classes. So: don't worry about it!

3 A note on fonts

The house style of the University of Antwerp recommends using

- Prenton RP Pro for the logos and sublogos; all the logoware is included in this package, so nothing to worry about.
- ITC Officina Sans for posters, titlepages, cards a.s.o.
This font is not a part of the L^AT_EX 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 L^AT_EX compilers (PDFL^AT_EX, X_YL^AT_EX, LuaL^AT_EX, ...) from the major T_EX-distributions (TeX, TeXLive, MikTeX). However, using an old L^AT_EX + dvips setup is likely to get you into font problems. Advice: ditch the route via dvi. If you experience other problems, please inform the author. New advice as of 2023: don't use PdfL^AT_EX anymore, stick to X_YL^AT_EX or even better LuaL^AT_EX. Your life will be font-problem-worry-free.

5 Usage

5.1 Basic Usage

Use the templates provided below. Remember to L^AT_EX your source file twice.

Especially in the beamer theme some features require to run L^AT_EX twice in order to get the position of some elements correct.

5.1.1 uantwercoursetext class

Use the following harness for your L^AT_EX course text:

```
\documentclass[t1,a4paper]{uantwercoursetext}
```

```

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

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

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

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

\academicyear{<XXXX-YYYY>}

\begin{document}

  \maketitle

  % put your LaTeX code here

  \finalpage

\end{document}

```

As of version 4.0:

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

5.1.2 uantwerpenbamathesis class

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

```

\documentclass[ti,a4paper]{uantwerpenbamathesis}

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

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

% you can specify, no, one or multiple names in the categories
% supervisor (= promotor), cosupervisor (= copromotor),
% extsupervisor (= externe promotor)
\supervisor{<put supervisor's name(s) here>}{<affiliation goes here>}
\supervisor{<put supervisor's name(s) here>}{<affiliation goes here>}

```

```

\cosupervisor{<put supervisor's name(s) here>}{<affiliation goes here>}
\cosupervisor{<put supervisor's name(s) here>}{<affiliation goes here>}
\extsupervisor{<put supervisor's name(s) here>}{<affiliation goes here>}
\extsupervisor{<put supervisor's name(s) here>}{<affiliation goes here>}

% classmarker
\academicyear{<XXXX-YYYY>}

\begin{document}

    \maketitle

    % put your LaTeX code here

    \finalpage

\end{document}

```

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

5.1.3 uantwerpenletter class

Use the following harness for your L^AT_EX letter:

```

\documentclass[a4paper,ti]{uantwerpenletter}

% setup fonts according to your specific TeX compiler setup

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

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

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

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

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

\begin{document}

    \maketitle % generates top of the letter

```

```

\opening{Dear <name>}

<write your letter here>

\closing{Kind regards,}

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

\end{document}

```

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

5.1.4 `uantwerpenphdthesis` class

```

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

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

\title{<put your title here>}
\author{<put your name here>}
\affiliation{<put your affiliation here>}
\department{<put department here, if there is an official department>}
\address{<put your contact details here>}

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

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

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

\degree{<put official degree name here>}
\defenselocation{<put location of defense here>}
\defensedate{<put defense year here>}
\titlepageimage{<set file name of title page image here>}

\isbn{<put ISBN13 number here>}
\depot{<put Depot number here>}

\begin{document}

\maketitle
\frontmatter
\tableofcontents
\mainmatter

% write your PhD text here

```

```

\appendix

% write appendix material here

\makefinalpage

\end{document}

```

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

5.1.5 uantwerpenreport class

```

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

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

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

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

\begin{document}

\maketitle
\frontmatter
\tableofcontents
\mainmatter

% write your PhD text here

\appendix

% write appendix material here

\makefinalpage

\end{document}

```

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

5.1.6 uantwerpenbeamer theme

```

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

```

```

% theme)
\usetheme[ti]{uantwerpen}
\usepackage[dutch]{babel}

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

\begin{document}

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

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

\end{document}

```

5.2 The class options explained

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

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

Option	Faculty
be	Faculty of Business and Economics Faculteit Bedrijfswetenschappen en Economie
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`

5.3 The macros explained

5.3.1 Macros for the `coursetext`, `bamathesis`, `phdthesis` classes

`\academicyear` [coursetext / bamathesis] (mandatory)

Use this macro to specify the academic year in full, i.e. in the form XXXX-YYYY.

`\author` [coursetext / bamathesis / phdthesis / report] (mandatory)

This macro sets the author of the document. It also sets the `pdfauthor` tag of the `hyperref` package (if it is loaded), so that the PDF-document meta-information is correct.

`\copyrightnotices` [coursetext / report] (optional)

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

`\course` [coursetext] (mandatory)

Code (first argument) and name (second argument) of the curriculum course this coursematerial or exam belongs to. The code should be of the form:

TNNNFFFAAA, with:

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

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

- `\courseversion` [coursetext] (optional)
This macro indicates which version of the course this is.
- `\defensedate` [phdthesis] (mandatory)
Only the year should be mentioned.
- `\defenselocation` [phdthesis] (optional)
Location of the defense. Defaults to “Antwerpen”.
- `\diploma` [bamathesis] (discontinued)
This macro is no longer used. Use `\degree{}` instead.
- `\lecturer` [coursetext] (mandatory)
You can add one or more lecturers to the course notes (in Dutch: titularis). If there are multiple persons, please, use the macro multiple times.
- `\phddegree` [phdthesis] (discontinued)
This macro is no longer used. Use `\degree{}` instead.
- `\degree` [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`

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-wtffy	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 reprographic service of campus Groenenborger, one of the standard printing services of Universiteit Antwerpen. Separate the different fields (name, address, a.s.o) using a pipe symbol.
- `\publishercode` [coursetext] (mandatory)
This macro sets the publisher code of the document. It is printed on the front page. This is code that the publisher uses for its internal administration. It may be a proprietary code, or an ISBN number.
- `\subtitle` [coursetext / phdthesis / report] (optional)
This macro sets the title of the document. You may use this
- to further clarify the title
 - to indicate the nature of this document
- The latter is to be considered when you want to provide multiple documents as parts of the full course text (e.g., Course Notes, Formula Collection, Exercise Book, Solution Book). This macro also sets the `subject` tag of the hyperref package (if it is loaded), so that the PDF-document meta-information is correct.
- `\supervisor` [bamathesis / phdthesis] (mandatory)
Specifies the person(s) that promote(s)/supervise(s) the thesis. Please, use the macro multiple times if needed.
- `\title` [coursetext / bamathesis / phdthesis / report] (mandatory)
This macro sets the title of the document. It also sets the `pdftitle` tag of the hyperref package (if it is loaded), so that the PDF-document meta-information is correct.
- `\titlepageimage` [phdthesis / report] (optional)
This sets the filename of the central image on the title page to appear clipped within the curves. For PhD theses this is highly advised. For course texts, this is optional. If the image is not set, a flat colored area will appear. This is part of the house style.
- `\versionyear` [coursetext / report] (mandatory)
This is to be the year in which you published the current version of the course in the form YYYY.

5.3.2 Macros for the letter class

- `\address` [letter] (mandatory)
Address of the sending unit (or faculty). This can be different from the return address. Newlines are allowed and encouraged.
- `\carboncopy` [letter] (optional)
List of persons receiving a copy of this letter. Format at will.
- `\closing` [letter] (mandatory)

Closing clause of the letter. E.g. 'Best regards,'.

`\date` [letter] (optional)
Date of the letter. If not specified today's date (at the time of running `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.

5.3.3 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 10.
`\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 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.
`\examdate` specifies the date of the exam. We recommend the YYYY-MM-DD format, but you are free to choose your own coding scheme for dates. We advise against using UNIX epoch time, to avoid problems in the first semester exams in 2038.
`\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 on the front page.
- `\tend` specifies the end time of the exam in a format identical to the one chosen for `\tstart`.
- `\tstart` specifies the start time of the exam, preferable in the format 'HHhMM', e.g. '08h30'.

5.4 Examples

5.4.1 uantwerpencoursetext

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

\setlength\parindent{1in}
\setlength\parskip{0ex}

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

```

\courseversion{1.3}
\versionyear{2022}

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

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

\academicyear{2022-2023}

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

\publishercode{C11111102}

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

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}

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

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

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

\kant[4]

\subsection{Herhaling}

\kant[5]

```

```

\subsection{Begint vervelend te worden}

\kant[6]
\newpage

\subsection{Begint echt vervelend te worden}

\kant[7-10]

\chapter{Besluit}

\appendix

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

\makefinalpage

\end{document}
</ct-example>

```

5.4.2 uantwerpenbamathesis

```

<*bmt-example>
\documentclass[ti,twoside,openright,a4paper,11pt]{uantwerpenbamathesis}
1. specify your faculty in the options above! This will trigger the
   correct color scheme and logos.
   FTI = ti
   FWET = we
2. for two-sided theses, specify 'twoside' and 'openright' as options
   for one-sided theses, specify 'oneside' and 'openany' as options

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

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

\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}

\bamadegree{ti-en-ba-em}
\degree{} % You can specify your degree manually here, instead of using
% \textbackslash{}bamadegree}
\title{Minimax optimisatie voor performantie-
ruimtemodellering} % either don't split titles, or do so with hyphen
% and a newline
\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.}

keep the spaces around the dash!
\academicyear{2022 - 2023}

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

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\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]

\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).

\chapter{Inleiding}

\insettext{Bene vixit qui bene latuit!}

\kant[1]

\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.}

\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}

\appendix

\chapter{Symbolen}
\chapter{Referentielijst}

\end{document}
</bmt-example>

```

5.4.3 uantwerpenphdthesis

Dutch

```

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

  You may want to use common fonts
\usepackage{mathptmx}
\iftutex
  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

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

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

\title{Harmonische Signaalanalyse\met behulp van Lineaire
Operatoren}

```

```

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

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

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

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

\degree{doctor in de toegepaste ingenieurswetenschappen}
\defenselocation{Antwerpen}
\defensedate{2022}
\titlepageimage{Images/uantwerpen-keyboard.jpg}

\isbn{987-90-57285-34-7} % don't specify this if you don't want one
\depot{D/2022/12.293/03} % idem

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}

\kant[1]

\chapter{Onderzoeksvraag}

\section{Het gegeven}

\kant[2]

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

\kant[3-17]

\chapter{Literatuurstudie}

```

```

\kant[18-19]

\chapter{Theoretische achtergrond}

\kant[20-21]

\chapter{Eigen realisatie}

\kant[22-24]

\chapter{Besluit}

\kant[25]

\appendix
\chapter{Symbolen}

\chapter{Publicaties}
Put your bibliography here using BibTeX

\makefinalpage

\end{document}
</pt-example1>

```

English

```

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

use some fancy font
\usepackage{newpertext}
\usepackage{newpymath}

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

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

normal title
\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 doctoraatsthesisen toch altijd

```



```

lang en onverstaanbaar zijn?}

\author{Ing. Theodore Edgeoff}
\affiliation{University of Antwerp\\
  Faculty of Applied Engineering\\
  Cosys-Lab}
\address{Groenenborgerlaan 171, 2020 Antwerpen, Belgi"e\\
  M: theofiel.hoekaff@uantwerpen.be\\
  T: +32 265 00 00
}

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

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

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

\degree{doctor in applied engineering}
\defenselocation{Antwerpen}
\defensedate{2022}
\titlepageimage{Images/uantwerpen-keyboard.jpg}

\isbn{987-90-57285-34-7}
\depot{D/2022/12.293/03}

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Introduction}

\kant[1]

\chapter{Research question}

\section{The datum}

\kant[2]

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

\kant[3-17]

\chapter{Literature review}

```

```

\kant[18-19]

\chapter{Theoretical background}

\kant[20-21]

\chapter{Technical results}

\kant[22-24]

\chapter{Conclusion}

\kant[25]

\appendix

\chapter{Symbols}

Put your bibliography here using BibTeX

\makefinalpage

\end{document}
</pt-example2>

```

5.4.4 uantwerpenreport

```

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

You may want to use common fonts
\usepackage{mathptmx}
\iftutex
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

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

\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}

```

```
% New: you must load the hyperref package
% yourself! This allows you to put it in the
% correct order with the other packages you load!
```

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

\versionyear{2022}

\titlepageimage{Images/uantwerpen-keyboard.jpg}

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}

\kant[1]

\chapter{Smaken en smaakpapillen}

\section{Het gegeven}

\kant[2]

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

\kant[3-17]

\chapter{Experimentele setup}

\kant[18-19]

\chapter{Resulaten}

\kant[20-21]

\chapter{Conclusie}

\kant[22-24]
```

```

\chapter{Advies}

\kant[25]

\appendix
\chapter{Symbolen}

\chapter{Publicaties}
Put your bibliography here using BibTeX

\makefinalpage

\end{document}
</rp-example>

```

5.4.5 uantwerpenletter

Plain example

```

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

% You can suppress the foldline, using the nofoldline option.
%
% 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

\usepackage[english]{babel}
\usepackage{kantlipsum} % this is just for some dummy text, please remove

\sender{prof. Walter Daems}{Senior Lecturer}
\unit{Cosys-Lab}
\address{
Campus Groenenborger\\
Groenenborgerlaan 171\\
B-2020 Antwerpen\\
BELGIUM}
\email{walter.daems}{uantwerpen.be}

```

```

\phone{+32 3 265 98 43}
\mobile{+32 499 355 115}
\returnaddress{FTI - U.301 -- Groenenborgerlaan 171, 2020 Antwerpen, BELGIUM}

\to{prof. B. Bonette}
\toorganization{Mumford University}
\toaddress{
  450 Morning Mall\\
  Mumford, DX 94305-2004\\
  USA}

\date{January 3, 2016}
\subject{Congratulations for online video lectures}

\begin{document}
  \maketitle

  \opening{Dear prof. Bonette,}

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

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

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

  \kant[1-3]

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

```

Example with configuration file

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

```
<*le-cfg>
% configuration file for uantwerpenletter class
\iftutex
\usepackage{cmbright}
\usepackage{fontspec}
\setmainfont
[UprightFont = *,
 BoldFont = *b,
 ItalicFont = *i,
 BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

\sender{prof. Walter Daems}{Senior Lecturer}
\unit{Cosys-Lab}
\address{
  Campus Groenenborger\\
  Groenenborgerlaan 171\\
  B-2020 Antwerpen\\
  BELGIUM}
\email{walter.daems}{uantwerpen.be}
\phone{+32 3 265 98 43}
\mobile{+32 499 355 115}
\returnaddress{FTI - U.301 -- Groenenborgerlaan 171, 2020 Antwerpen, BELGIUM}
</le-cfg>
```

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

```
\input{uantwerpenletter.cfg}
```

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

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

5.4.6 uantwerpenexam

Below you can find two examples:

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

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

Single column

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

\course{1876FTIDUM}{5-Bistrologie}
\author{Walter Daems} % can be omitted if 'lecturers' are sufficient
\lecturer{Walter Daems}
\degree{Bachelor of Science in de industri\ "ele wetenschappen - elektronica-
ICT}
\academicyear{2017-2018}
\exampart{Schriftelijk Examen}
\examgroupnumber{1 (eerste examenkans-inhaal)}
\examdate{2018-01-29}
\examlength{4h}
\tstart{08h30}
\tend{12h30}
\room{G.U.025}
\extrainfo[firstpage]{
  Belangrijke informatie:\\par
  Het volledige Onderwijs- en Examenreglement (OER) is van toepassing
  op dit examen.
  Toch wil ik vooraf nog een aantal regels duidelijk stellen:
  \begin{enumerate}
  \item Mogen op je tafeltje aanwezig zijn:
    (1) 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 communicatiefunctie 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!
}
\studentnr{127}
```

```

\setmcsymbol{\bigcirc}

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

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

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

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

\insertsolutionspagepartial{2}

\insertsolutionspage{}
\clearpage

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

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

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

```

Two columns

```

<*ex-example2>
\documentclass[ti,a4paper,10pt]{uantwerpenexam}
\usepackage{newpctext} % demonstration of some fine font packages

```



```

\usepackage{newpxmath}
\usepackage{enumitem}
\usepackage[dutch,english]{babel} % last language loaded will
                                   % determine logo version (change to
                                   % [dutch] for a monolingual version)

\course{1876FTIDUM}{5-Bistrology}
\lecturer{Walter Daems}
\lecturer{Paul Levrie}
\degree{Bachelor of Science in de industri\ "ele wetenschappen - elektronica-
ICT}
\academicyear{2017-2018}
\exampart{Written Exam}
\examgroupnumber{1 (eerste examenkans-inhaal)}
\examdate{2018-01-29}
\examlength{4h}
\tstart{08h30}
\tend{12h30}
\room{G.U.025}
\room{G.U.026}
\extrainfo{
  \engdut{
    Important information:\\\par
    The Education and Examination Regulations (EER) hold for this
    examination in full.
    However, before starting, I'd like to set some rules straight:
  }
  {
    Belangrijke informatie:\\\par
    Het volledige Onderwijs- en Examenreglement (OER) is van toepassing
    op dit examen.
    Toch wil ik vooraf nog een aantal regels duidelijk stellen:
  }
  \engdut{
    \begin{itemize}
      \item \emph{Can be used:} (1) writing gear (\emph{not} in a pencil
        case); you don't need paper; there's plenty of paper in your exam
        copy;
        (2) your calculator (without alphanumerical data and without memory
        cards); (3) the formula collection.
    \end{itemize}
  }
  {
    \begin{itemize}
      \item Mogen op je tafeltje aanwezig zijn:
        (1) schrijfgierief, los d.w.z. \emph{niet} in een pennenzak (geen
        papier; er zit examenpapier bij de opgaven),
        (2) je rekenmachine (zonder alfanumerieke data en zonder
        geheugenkaarten),
        (3) het formularium.
    \end{itemize}
  }
  \engdut{
    \begin{itemize}

```

```

\item \emph{May not be used:} all equipment with memory or
communications facilities, like cell phones, smart phones, smart
watches, music players, \ldots
Your bag must be put in the front of the room. Put your coat on the
hallstand or next to your bag.
\end{itemize}
}
{
\begin{itemize}
\item Volledig \emph{verboden te gebruiken}: alle apparatuur met
geheugen- of communicatiefunctie zoals GSM, smartphone,
smartwatch, 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
voorzien vak. Op de andere bladen schrijf je je naam
\emph{niet}. Je examenopgave heeft een uniek nummer dat toelaat het
te identificeren.
\end{itemize}
}
\engdut{
\begin{itemize}
\item Take your time to \emph{answer all questions in writing}. The
point weights are listed above every question. Be complete in your
answer, but stick to the point. Take into account the available time.
\end{itemize}
}
{
\begin{itemize}
\item Neem je tijd om \emph{alle vragen schriftelijk te
beantwoorden}. Het puntengewicht van een vraag is bovenaan de vraag
op de opgavebladen vermeld. Wees volledig in je antwoord, maar ter
zake. Houd rekening met de beschikbare tijd.
\end{itemize}
}
\engdut{
\begin{itemize}
\item Hand in \emph{all} papers to the staff member on duty, at the
end of the examination.
\end{itemize}
Success!
}
{

```

```

\begin{itemize}
\item Op het einde van het examen geef je \emph{alle} bladen weer af
aan de aanwezige docent.
\end{itemize}
Succes!
}
\clearpage
}

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

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

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

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

\insertsolutionspagepartial{20}

\insertsolutionspage{}
\clearpage

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

\engdut{
\begin{enumerate}[label=\alph*]
\item Discuss the evolution of the Northern European bistro culture during
the latest fifty years.
\item Relate this to the rise of organized reviews
like the ones of Michelin and Gault-Millau.

```

```

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

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

```

6 Implementation of the classes

6.1 Common options

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

```

1 <*clo>
2 \newif\if@neutralcolors
3 \@neutralcolorsfalse
4 \DeclareOption{neutralcolors}{\@neutralcolorstrue}
5
6 \newcommand*\colormodel{rgb}
7 \newif\if@cmymk
8 \@cmymkfalse
9 \DeclareOption{cmymk}{\renewcommand*\colormodel{cmymk}\@cmymktrue}
10 \DeclareOption{rgb}{\renewcommand*\colormodel{rgb}\@cmymkfalse}
11
12 \newcommand*\facinenglish[1]{\renewcommand\@faculty{#1}}
13 \newcommand*\facindutch[1]{
14 \AtBeginDocument{
15 \makeatother
16 \@ifpackageloaded{babel}{
17 \addto\captionsdutch{\renewcommand*\@faculty{#1}}
18 }{}
19 \makeatletter
20 }
21 }
22 \newcommand*\fselector{ua}

```

```

23 \newcommand*\lselector{en}
24 \newlength\logounitheight
25 \setlength\logounitheight{0.8cm}
26
27 \newcommand*\@faculty{~}
28 \DeclareOption{be}{
29   \renewcommand*\fselector{be}
30   \setlength\logounitheight{1cm}
31   \facinenglish{Faculty of Business and Economics}
32   \facindutch{Faculteit Bedrijfswetenschappen en Economie}
33 }
34 \DeclareOption{fbd}{
35   \renewcommand*\fselector{fbd}
36   \setlength\logounitheight{1cm}
37   \facinenglish{Faculty of Pharmaceutical, Biomedical and Veterinary Sciences}
38   \facindutch{Faculteit Farmaceutische, Biomedische en Diergeneeskundige
39     Wetenschappen}
40 }
41 \DeclareOption{ggw}{
42   \renewcommand*\fselector{ggw}
43   \setlength\logounitheight{1cm}
44   \facinenglish{
45     Faculty of Medicine and Health Sciences}
46   \facindutch{Faculteit Geneeskunde en Gezondheidswetenschappen}
47 }
48 \DeclareOption{lw}{
49   \renewcommand*\fselector{lw}
50   \setlength\logounitheight{1cm}
51   \facinenglish{Faculty of Arts}
52   \facindutch{Faculteit Letteren en Wijsbegeerte}
53 }
54 \DeclareOption{ow}{
55   \renewcommand*\fselector{ow}
56   \setlength\logounitheight{1cm}
57   \facinenglish{Faculty of Design Sciences}
58   \facindutch{Faculteit Ontwerpwetenschappen}
59 }
60 \DeclareOption{re}{
61   \renewcommand*\fselector{re}
62   \setlength\logounitheight{1cm}
63   \facinenglish{Faculty of Law}
64   \facindutch{Faculteit Rechten}
65 }
66 \DeclareOption{sw}{
67   \renewcommand*\fselector{sw}
68   \setlength\logounitheight{1cm}
69   \facinenglish{Faculty of Social Sciences}
70   \facindutch{Faculteit Sociale Wetenschappen}
71 }
72 \DeclareOption{ti}{
73   \renewcommand*\fselector{ti}
74   \setlength\logounitheight{1cm}
75   \facinenglish{Faculty of Applied Engineering}
76   \facindutch{Faculteit Toegepaste Ingenieurswetenschappen}

```

```

77 }
78 \DeclareOption{we}{
79   \renewcommand*\fselector{we}
80   \setlength\logounitheight{1cm}
81   \facinenglish{Faculty of Science}
82   \facindutch{Faculteit Wetenschappen}
83 }
84 \DeclareOption{iob}{
85   \renewcommand*\fselector{iob}
86   \setlength\logounitheight{1cm}
87   \facinenglish{Institute of Development Policy}
88   \facindutch{Instituut voor Ontwikkelingsbeleid- en beheer}
89 }
90 \newcommand*\@facultyacronym{\expandafter\uppercase\expandafter{\fselector}}
91
92 \AtBeginDocument{
93   \makeatother
94   \@ifpackageloaded{babel}{
95     \addto\captionsdutch{
96       \renewcommand*\lselector{nl}
97     }{}
98   }
99   \makeatletter
100
101   \newcommand*\logopos{Logos/logo-uantwerpen-\fselector-\lselector-\colormodel-
pos}
102   \newcommand*\logoposua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
pos}
103   \newcommand*\logoneg{Logos/logo-uantwerpen-\fselector-\lselector-\colormodel-
neg}
104   \newcommand*\logonegua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
neg}
105   \newcommand*\logomonowhite{Logos/logo-uantwerpen-\fselector-\lselector-
\colormodel-mono-white}
106   \newcommand*\logomonowhiteua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
mono-white}
107   \newcommand*\iconfile{Logos/icon-uantwerpen-\fselector-\colormodel}
108   \newcommand*\iconfileua{Logos/icon-uantwerpen-ua-\colormodel}
109 }
110 </clo>

```

6.2 Color scheme

```

111 <*cls>
112 \if@cmym
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{uafbmain}{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{uafbdside}{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\selector main}
188 \colorlet{sidecolor}{ua\selector side}
189 \colorlet{basecolor}{uauaside}
190 \fi
191 \</cls>

```

6.3 Class inheritance

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

Before loading the class, we provide the extra options.

```

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

```

6.4 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>

```

6.5 Auxiliary packages

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

6.5.1 Geometry

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

```

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>

```

6.5.2 Preparing for L^AT_EX3

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>

```

6.5.3 Font packages

Note that the use of `cmbright` is no longer imposed (as of v1.3). Using a good font is now up to the user. The packages `'newpxtext/newpxmath'` and `'cmbright'` are highly recommended. For writing letters, `'Calibri'` is the official font of the University of Antwerp.

```

274 <*ct | bmt | pt | rp | le>
275 % no more font code
276 </ct | bmt | pt | rp | le>

```

6.5.4 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>
```

6.5.5 Graphics packages

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

Some packages for coursetext and bamathesis:

```
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>
299 <*pt>
300 \usepackage{ean13isbn}
301 </pt>
```

6.5.6 UAntwerpen color and logo scheme

```
302 <*ct | bmt | pt | rp | le | ex>
303 \RequirePackage{uantwerpencolorlogoscheme}
304 </ct | bmt | pt | rp | le | ex>
```

6.5.7 Header/Footer

The de-facto standard for headers and footers:

```
305 <*ct | bmt | pt | rp | le | ex>
306 \RequirePackage{fancyhdr}
307 </ct | bmt | pt | rp | le | ex>
```

6.6 Colors

```
308 <*ct | bmt | pt | rp | le | ex>
309 \definecolor{lightgray}{cmyk}{0.00,0.00,0.00,0.05}
310 \definecolor{darkgray}{cmyk}{0.00,0.00,0.00,0.80}
311 \definecolor{watermark}{cmyk}{0.00,0.00,0.00,0.05}
312 </ct | bmt | pt | rp | le | ex>
```

6.7 Fancy highlighting

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

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

6.8 Fancy inset texts and quotes

```
325 <*bmt | pt | ct | rp>
326 \newcommand\insettext[1]{
327   \textcolor{basecolor}{
328     \begin{tabular}{@{\hskip3ex}\textcolor{maincolor}{\vrule width 2.5pt}\hskip3ex\large\bfse
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>
```

6.9 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>
```

6.10 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>

```

6.11 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\captionenglish{%
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 of = of
433 domainname = uantwerp.be
434 datename = Date
435 subjectname = Subject
436 acyearname = Academic year
437 baname = Bachelor of Science
438 spname = Switching Programme
439 vpname = Preparatory Programme
440 maname = Master of Science
441 phdname = PhD
442 thesisname = Thesis
443 mthesisname = Master's thesis
444 bthesisname = Bachelor's thesis
445 lecturername = Lecturer
446 lecturersname = Lecturers
447 supervisorname = Supervisor
448 supervisorsname = Supervisors
449 cosupervisorname = Cosupervisor
450 cosupervisorsname = Cosupervisors
451 extsupervisorname = External supervisor
452 extsupervisorsname = External supervisors
453 examname = Exam --- Examen
454 seriesname = Series
455 lastname = Last name --- Naam
456 firstname = First name --- Voornaam
457 docketname = Docket No. --- Rolnr.
458 roomname = Room --- Lokaal
459 roomsname = Rooms --- Lokalen
460 examstartname = Start --- Begin
461 examendname = End --- Einde
462 examdurationname = Exam duration --- Duur van het examen
463 juryname = Jury
464 jurymembersname = Members
465 jurychairmanname = Chairman
466 bmthesisname = Thesis to obtain the degree of
467 pthesisnamei = Thesis submitted in fulfilment of the requirements for the degree of
468 pthesisnameii = at the University of Antwerp
469 weightname = Weight
470 </endata>

The Dutch data can be found below:

471 <*nldata>
472 org-be = Faculteit Bedrijfswetenschappen en Economie
473 org-fbd = Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
474 org-ggw = Faculteit Geneeskunde en Gezondheidswetenschappen
475 org-lw = Faculteit Letteren en Wijsbegeerte
476 org-ow = Faculteit Ontwerpwetenschappen

477 org-re = Faculteit Rechten
478 org-sw = Faculteit Sociale Wetenschappen
479 org-ti = Faculteit Toegepaste Ingenieurswetenschappen
480 org-we = Faculteit Wetenschappen
481 org-iob = Instituut voor Ontwikkelingsbeleid- en beheer
482 org-ua = Universiteit Antwerpen
483 arr = Alle rechten voorbehouden
484 of = van
485 domainname = uantwerpen.be
486 datename = Onderwerp
487 subjectname = Datum
488 acyearname = Academiejaar
489 baname = Bachelor of Science
490 spname = Schakelprogramma
491 vpname = Voorbereidingsprogramma
492 maname = Master of Science
493 phdname = Doctoraat
494 thesisname = Afstudeerproef
495 mthesisname = Masterproef
496 bthesisname = Bachelorproef
497 lecturername = Titularis
498 lecturersname = Titularissen
499 supervisorname = Promotor
500 supervisorsname = Promotoren
501 cosupervisorname = Copromotor
502 cosupervisorsname = Copromotoren
503 extsupervisorname = Externe Promotor
504 extsupervisorsname = Externe Promotoren
505 examname = Examen
506 seriesname = Reeks
507 lastname = Naam
508 firstname = Voornaam
509 docketname = Rolnr.
510 roomname = Lokaal
511 roomsname = Lokalen
512 examstartname = Begin
513 examendname = Einde
514 examdurationname = Duur van het examen
515 juryname = Jury
516 jurymembersname = Leden
517 jurychairmanname = Voorzitter
518 bmthesisname = Proefschrift tot het behalen van de graad van
519 pthesisnamei = Proefschrift voorgelegd tot het behalen van de graad van
520 pthesisnameii = aan de Universiteit Antwerpen te verdedigen door
521 weightname = Gewicht
522 </nldata>

6.12 Bachelor and Master document types

523 <*doctypedata>
524 nl-ba = Bachelorproef
525 nl-ma = Masterproef
526 nl-pr = Projectverslag


```

527 en-ba = Bachelor's thesis
528 en-ma = Master's thesis
529 en-pr = Project report
530 </doctypedata>

531 <*bmt | ct | pt | ex>
532 \ExplSyntaxOn
533 \cs_generate_variant:Nn \prop_item:Nn{ Nx }
534 \NewDocumentCommand{\antwerpendocsdoctype}{m}{
535   \prop_item:Nx \g_@@_data_prop { #1 }
536 }
537 \ExplSyntaxOff
538 </bmt | ct | pt | ex>

```

6.13 Bachelor and Master disclaimers

```

539 <*bmt>
540 \newcommand\disclaimer[1]{
541   Disclaimer #1\newline\newline
542   This document is an examination document that has not been
543   corrected for any errors identified. Without prior written
544   permission of both the supervisor(s) and the author(s), any copying,
545   copying, using or realizing this publication or parts thereof
546   is prohibited. For requests for information regarding the copying
547   and/or use and/or realisation of parts of this publication, please
548   contact to the university at which the author is registered.
549   \newline\newline
550   Prior written permission from the supervisor(s) is also
551   required for the use for industrial or commercial utility of the
552   (original) methods, products, circuits and programs described in this
553   thesis, and for the submission of this publication for participation
554   in scientific prizes or competitions.
555   \newline\newline
556   This document is in accordance with the master thesis regulations and the
557   Code of Conduct. It has been reviewed by the supervisor and the attendant.
558 }
559 \AtBeginDocument{
560   \makeatother
561   \@ifpackageloaded{babel}{
562     \addto\captionsdutch{%
563       \renewcommand\disclaimer[1]{
564         Disclaimer #1\newline\newline
565         Dit document is een examendocument dat niet werd gecorrigeerd voor
566         eventueel vastgestelde fouten. Zonder voorafgaande schriftelijke
567         toestemming van zowel de promotor(en) als de auteur(s) is overnemen,
568         kopiëren, gebruiken of realiseren van deze uitgave of gedeelten ervan
569         verboden. Voor aanvragen tot of informatie i.v.m. het overnemen en/of
570         gebruik en/of realisatie van gedeelten uit deze publicatie, wendt u
571         tot de universiteit waaraan de auteur is ingeschreven.
572         \newline\newline
573         Voorafgaande schriftelijke toestemming van de promotor(en) is eveneens
574         vereist voor het aanwenden van de in dit afstudeerwerk beschreven
575         (originele) methoden, producten, schakelingen en programma's voor
576         industrieel of commercieel nut en voor de inzending van deze

```

```

577     publicatie ter deelname aan wetenschappelijke prijzen of wedstrijden.
578     \newline\newline
579     Dit document is in overeenstemming met het masterproefreglement en de
580     gedragscode en nagekeken door promotor en begeleider.
581   }
582 }
583 }{}
584 \makeatletter
585 }
586 \
```

6.14 Educational degrees

```

587 (*degreedata)
588 ti-nl-ba-bk = Bachelor of Science in de industriële wetenschappen: bouwkunde
589 ti-nl-ba-ch = Bachelor of Science in de industriële wetenschappen: chemie
590 ti-nl-ba-em = Bachelor of Science in de industriële wetenschappen: elektromechanica
591 ti-nl-ba-ei = Bachelor of Science in de industriële wetenschappen: elektronica-
    ICT
592 ti-en-ba-bk = Bachelor of Science in de industriële wetenschappen: bouwkunde
593 ti-en-ba-ch = Bachelor of Science in de industriële wetenschappen: chemie
594 ti-en-ba-em = Bachelor of Science in de industriële wetenschappen: elektromechanica
595 ti-en-ba-ei = Bachelor of Science in de industriële wetenschappen: elektronica-
    ICT
596 ti-nl-ma-bk = Master of Science in de industriële wetenschappen: bouwkunde
597 ti-nl-ma-bch = Master of Science in de industriële wetenschappen: biochemie
598 ti-nl-ma-ch = Master of Science in de industriële wetenschappen: chemie
599 ti-nl-ma-em = Master of Science in de industriële wetenschappen: elektromechanica
600 ti-nl-ma-ei = Master of Science in de industriële wetenschappen: elektronica-
    ICT
601 ti-en-ma-ei = Master of Science in Electronics and ICT Engineering Technology
602 ti-nl-eduma-wtstem = Educatieve master of Science in de wetenschappen en technologie: STEM
603 we-nl-eduma-wtstem = Educatieve master of Science in de wetenschappen en technologie: STEM
604 we-nl-eduma-wtbchbt = Educatieve master of Science in de wetenschappen en technologie: biochemie
605 we-nl-eduma-wtbio = Educatieve master of Science in de wetenschappen en technologie: biologie
606 we-nl-eduma-wtch = Educatieve master of Science in de wetenschappen en technologie: chemie
607 we-nl-eduma-wtgy = Educatieve master of Science in de wetenschappen en technologie: fysica
608 we-nl-eduma-wtinf = Educatieve master of Science in de wetenschappen en technologie: informatica
609 we-nl-eduma-wtwi = Educatieve master of Science in de wetenschappen en technologie: wiskunde
610 we-nl-ba-bircg = Bachelor of Science in de bio-ingenieurswetenschappen: cel- en genbiotechnologie
611 we-nl-ba-birvt = Bachelor of Science in de bio-ingenieurswetenschappen: chemie en voedingstechnologie
612 we-nl-ba-birlb = Bachelor of Science in de bio-ingenieurswetenschappen: land- en bosbeheer
613 we-nl-ba-birmt = Bachelor of Science in de bio-ingenieurswetenschappen: milieutechnologie
614 we-nl-ba-bio = Bachelor of Science in de biologie
615 we-nl-ma-bioeg = Master of Science in de biologie: evolutie en gedragsbiologie
616 we-en-ma-biocr = Master of Science in biology: biodiversity, conservation and restoration
617 we-en-ma-biogcb = Master of Science in biology: global change biology
618 we-en-ma-biomb = Master of Science in molecular biology
619 we-nl-ba-ch = Bachelor of Science in de chemie
620 we-en-ma-ch = Master of Science in chemistry
621 we-nl-ba-inf = Bachelor of Science in de informatica
622 we-en-ma-infcn = Master of Science in computer science: computer networks
623 we-en-ma-infdsai = Master of Science in computer science: data science and artificial intelligence
624 we-en-ma-infse = Master of Science in computer science: software engineering
```

```

625 we-nl-ma-infcn = Master of Science in de informatica: computernetwerken
626 we-nl-ma-infdsai = Master of Science in de informatica: data science en artificiële intellig
627 we-nl-ma-infse = Master of Science in de informatica: software engineering
628 we-nl-ba-fy = Bachelor of Science in de fysica
629 we-nl-ma-fy = Master of Science in de fysica
630 we-en-ma-fy = Master of Science in physics
631 we-nl-ba-wi = Master of Science in wiskunde
632 we-nl-ma-wifw = Master of Science in wiskunde: fundamentele wiskunde
633 we-nl-ma-wiftw = Master of Science in wiskunde: financiële en toegepaste wiskunde
634 </degreedata>

635 <*bmt | ct | pt | ex>
636 \ExplSyntaxOn
637 \NewDocumentCommand{\uantwerpendocsdegree}{m}{
638   \prop_item:Nx \g_@@_data_prop { #1 }
639 }
640 \ExplSyntaxOff
641 </bmt | ct | pt | ex>

```

6.15 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.

```

642 <*ct | bmt | pt | rp | le | ex>
643 \newcommand*{\facultyacronym}[1]{
644   \PackageError{uantwerpendocs}
645   {The '\protect\facultyacronym{}' macro is no longer available. Use
646     your faculty abbreviation in lowercase as class options instead}
647   {The interface of uantwerpendocs 4.0 has been changed. See
648     the uantwerpendocs manual under section '5.2 The class options explained'}
649 }
650 </ct | bmt | pt | rp | le | ex>

```

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

```

651 <*ct | bmt | pt>
652 \newcommand*{\@department}{}
653 \newcommand*{\department}[1]{
654   \renewcommand*\@department{#1}
655 }
656 </ct | bmt | pt>

```

`\title` The `title` tag is native to L^AT_EX. 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!

```

657 <*pt>

```

```

658 \newcommand*\@titel{}
659 \newcommand*\titel[1]{%
660   \renewcommand*\@titel{#1}
661 }
662 \</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).

```

663 \<ct | pt | rp>
664 \newcommand*\@subtitle{~}
665 \newcommand*\subtitle[1]{%
666   \renewcommand*\@subtitle{#1}
667 }
668 \</ct | pt | rp>

```

`\subtitel` This macro sets the `\@subtitel` tag that later will be used on the Dutch translation 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!

```

669 \<pt>
670 \newcommand*\@subtitel{}
671 \newcommand*\subtitel[1]{%
672   \renewcommand*\@subtitel{#1}
673 }
674 \</pt>

```

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

```

675 \<ex>
676 \newcommand*\@shorttitle{}
677 \newcommand*\shorttitle[1]{%
678   \renewcommand*\@shorttitle{#1}
679 }
680 \</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.

```

681 \<ct>
682 \newcommand*\@courseversion{}
683 \newcommand*\courseversion[1]{\renewcommand*\@courseversion{#1}}
684 \</ct>

```

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

```

685 \<ct | rp>

```

```

686 \newcommand*{\@versionyear}{-}
687 \newcommand*{\versionyear}[1]{\renewcommand*{\@versionyear}{#1}}
688 </ct | rp)

```

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

```

689 <*ct)
690 \newcommand{\@publisher}{Universitas Cursusdienst |
691 Prinsesstraat 16 |
692 2000 Antwerpen |
693 T +32 3 233 23 73 |
694 E info@cursusdienst.be}
695 \newcommand*{\publisher}[1]{\renewcommand*{\@publisher}{#1}}
696 </ct)

```

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

```

697 <*ct)
698 \newcommand*{\@publishercode}{-}
699 \newcommand*{\publishercode}[1]{\renewcommand*{\@publishercode}{#1}}
700 </ct)

```

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

```

701 <*bmt)
702 \newcommand*{\@companylogo}{-}
703 \newcommand*{\companylogo}[1]{\renewcommand*{\@companylogo}{#1}}
704 </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!

```

705 <*ct | ex)
706 \ExplSyntaxOn
707 \seq_new:N \g_@@_lecturers
708 \cs_new:Nn \@@_addlecturer:n {
709   \seq_gpush:Nn \g_@@_lecturers { #1 }
710 }
711 \NewDocumentCommand{\lecturer}{m}{
712   \@@_addlecturer:n { #1 }
713 }
714 \NewDocumentCommand{\jointlecturers}{m}{
715   \seq_use:Nn \g_@@_lecturers { #1 }
716 }
717 \NewDocumentCommand{\lecturersname}{-}{
718   \if_int_compare:w \seq_count:N \g_@@_lecturers > 1
719     \uantwerpdocsprop{lecturersname}
720   \else:
721     \if_int_compare:w \seq_count:N \g_@@_lecturers > 0
722       \uantwerpdocsprop{lecturersname}
723     \fi
724   \fi:

```

```

725 }
726 \AtBeginDocument{
727   \seq_greverse:N \g_@@_lecturers
728 }
729
730 \ExplSyntaxOff
731 \</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).

```

732 \< *rp>
733 \newcommand\@extra{}
734 \newcommand\extra[1]{\renewcommand\@extra{#1}}
735 \< /rp>

```

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

```

736 \< *pt | rp>
737 \newcommand\@affiliation{
738   \PackageError{uantwerpendocs}
739   {Please, define the affiliation of the author using the
740   '\protect\affiliation{ }' command in the preamble of your
741   document.}
742   {See the uantwerpendocs manual}
743 }
744 \newcommand\affiliation[1]{\renewcommand\@affiliation{#1}}
745 \< /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!

```

746 \< *bmt | pt>
747 \ExplSyntaxOn
748 \seq_new:N \g_@@_supervisors
749 \seq_new:N \g_@@_supervisorswithaffiliation
750 \cs_new:Nn \@@_addsupervisor:nn {
751   \seq_gpush:Nn \g_@@_supervisors { #1 }
752   \seq_gpush:Nn \g_@@_supervisorswithaffiliation { #1,~#2 }
753 }
754 \NewDocumentCommand{\supervisor}{mm}{
755   \@@_addsupervisor:nn { #1 } { #2 }
756 }
757 \NewDocumentCommand{\jointssupervisors}{mm}{
758   \seq_use:Nnnn \g_@@_supervisors { #2 } { #1 } { #2 }
759 }
760 \NewDocumentCommand{\jointssupervisorswithaffiliation}{mm}{
761   \seq_use:Nnnn \g_@@_supervisorswithaffiliation { #2 } { #1 } { #2 }
762 }
763 \NewDocumentCommand{\supervisorsname}{m}{
764   \if_int_compare:w \seq_count:N \g_@@_supervisors > 2
765   \uantwerpendocsprop{supervisorsname} #1

```

```

766 \else:
767 \if_int_compare:w \seq_count:N \g_@@_supervisors = 2
768 \uantwerpendocsprop{supervisorname} #1
769 \else:
770 \fi:
771 \fi:
772 }
773 </bmt | pt>
774 <*bmt>
775 \seq_new:N \g_@@_cosupervisors
776 \seq_new:N \g_@@_cosupervisorswithaffiliation
777 \cs_new:Nn \@@_addcosupervisor:nn {
778 \seq_gpush:Nn \g_@@_cosupervisors { #1 }
779 \seq_gpush:Nn \g_@@_cosupervisorswithaffiliation { #1,~#2 }
780 }
781 \NewDocumentCommand{\cosupervisor}{mm}{
782 \@@_addcosupervisor:nn { #1 } { #2 }
783 }
784 \NewDocumentCommand{\jointcosupervisors}{mm}{
785 \seq_use:Nnnn \g_@@_cosupervisors { #2 } { #1 } { #2 }
786 }
787 \NewDocumentCommand{\jointcosupervisorswithaffiliation}{mm}{
788 \seq_use:Nnnn \g_@@_cosupervisorswithaffiliation { #2 } { #1 } { #2 }
789 }
790 \NewDocumentCommand{\cosupervisorsname}{m}{
791 \if_int_compare:w \seq_count:N \g_@@_cosupervisors > 2
792 \uantwerpendocsprop{cosupervisorsname} #1
793 \else:
794 \if_int_compare:w \seq_count:N \g_@@_cosupervisors = 2
795 \uantwerpendocsprop{cosupervisorname} #1
796 \else:
797 \fi:
798 \fi:
799 }
800 \seq_new:N \g_@@_extsupervisors
801 \seq_new:N \g_@@_extsupervisorswithaffiliation
802 \cs_new:Nn \@@_addextsupervisor:nn {
803 \seq_gpush:Nn \g_@@_extsupervisors { #1 }
804 \seq_gpush:Nn \g_@@_extsupervisorswithaffiliation { #1,~#2 }
805 }
806 \NewDocumentCommand{\extsupervisor}{mm}{
807 \@@_addextsupervisor:nn { #1 } { #2 }
808 }
809 \NewDocumentCommand{\jointextsupervisors}{mm}{
810 \seq_use:Nnnn \g_@@_extsupervisors { #2 } { #1 } { #2 }
811 }
812 \NewDocumentCommand{\jointextsupervisorswithaffiliation}{mm}{
813 \seq_use:Nnnn \g_@@_extsupervisorswithaffiliation { #2 } { #1 } { #2 }
814 }
815 \NewDocumentCommand{\extsupervisorsname}{m}{
816 \if_int_compare:w \seq_count:N \g_@@_extsupervisors > 2
817 \uantwerpendocsprop{extsupervisorsname} #1
818 \else:
819 \if_int_compare:w \seq_count:N \g_@@_extsupervisors = 2

```

```

820 \uantwerpendocsprop{extsupervisorname} #1
821 \else:
822 \fi:
823 \fi:
824 }
825 </bmt>
826 <*pt>
827 \AtBeginDocument{
828 \seq_gpush:Nn \g_@@_supervisors {}
829 \seq_greverse:N \g_@@_supervisors
830 \seq_gpush:Nn \g_@@_supervisorswithaffiliation {}
831 \seq_greverse:N \g_@@_supervisorswithaffiliation
832 }
833 </pt>
834 <*bmt>
835 \AtBeginDocument{
836 \seq_gpush:Nn \g_@@_supervisors {}
837 \seq_greverse:N \g_@@_supervisors
838 \seq_gpush:Nn \g_@@_supervisorswithaffiliation {}
839 \seq_greverse:N \g_@@_supervisorswithaffiliation
840 \seq_gpush:Nn \g_@@_cosupervisors {}
841 \seq_greverse:N \g_@@_cosupervisors
842 \seq_gpush:Nn \g_@@_cosupervisorswithaffiliation {}
843 \seq_greverse:N \g_@@_cosupervisorswithaffiliation
844 \seq_gpush:Nn \g_@@_extsupervisors {}
845 \seq_greverse:N \g_@@_extsupervisors
846 \seq_gpush:Nn \g_@@_extsupervisorswithaffiliation {}
847 \seq_greverse:N \g_@@_extsupervisorswithaffiliation
848 }
849 </bmt>
850 <*bmt | pt>
851 \ExplSyntaxOff
852 </bmt | pt>

```

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

```

853 <*pt>
854 \newcommand*{\@jurychairman}{
855 \PackageError{uantwerpendocs}
856 {Please, define a chairman of the jury using the
857 '\protect\jurychairman{'} command in the preamble of your
858 document.}
859 {See the uantwerpendocs manual}
860 }
861 \newcommand*{\@jurychairmanaff}{}
862 \newcommand*{\jurychairman}[2]{
863 \renewcommand*{\@jurychairman}{#1}\renewcommand*{\@jurychairmanaff}{#2}}
864 </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!


```

865 <*pt>
866 \ExplSyntaxOn
867 \seq_new:N \g_@@_jurymemberswithaffiliation
868 \cs_new:Nn \@@_addjurymember:nn {
869   \seq_gpush:Nn \g_@@_jurymemberswithaffiliation { #1,~#2 }
870 }
871 \NewDocumentCommand{\jurymember}{mm}{
872   \@@_addjurymember:nn { #1 } { #2 }
873 }
874 \NewDocumentCommand{\jointjurymembers}{m}{
875   \seq_use:Nn \g_@@_jurymemberswithaffiliation { #1 }
876 }
877 \AtBeginDocument{
878   \seq_greverse:N \g_@@_jurymemberswithaffiliation
879 }
880 \ExplSyntaxOff
881 </pt>

```

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

```

882 <*pt>
883 \newcommand*\phdegree{
884   \PackageError{uantwerpendocs}
885   {The '\protect\phdegree{}' macro is no longer available. Use
886     '\protect\degree{}' instead}
887   {The interface of uantwerpendocs 4.0 has been changed. Use the
888     '\protect\degree' macro to specify your degree in full text (see
889     the uantwerpendocs manual)'}
890 }
891 </pt>
892 %
893 %
894 % \begin{macro}{\degree}
895 %   This macro sets the |\@degree| tag that later will
896 %   be used on the title pages.
897 %
898 %   \begin{macrocode}
899 <*bmt | pt | ct | ex>
900 \newcommand*\@degree{
901   \PackageError{uantwerpendocs}
902   {Please, specify the official degree description using
903     the '\protect\degree{}' macro in the preamble of your document.}
904   {See the uantwerpendocs manual}
905 }
906 \newcommand*\degree[1]{\renewcommand*\@degree{#1}}
907 </bmt | pt | ct | ex>

```

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

```

908 <*bmt | pt | ct | ex>
909 \newcommand*\@bamadoctype{
910   \PackageError{uantwerpendocs}
911   {Please, specify the official document type, either using

```

```

912     the '\protect\bamadoctype{}' macro or the '\protect\bamadegree{}'
913     macro in the preamble of your document.}
914 {See the uantwerpendocs manual}}
915 \newcommand*\bamadoctype[1]{
916   \renewcommand*\@bamadoctype{\uantwerpendocsdoctype{#1}}
917 }
918 </bmt | pt | ct | ex>

```

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

```

919 <*bmt | pt | ct | ex>
920 \ExplSyntaxOn
921 \NewDocumentCommand{\bamadegree}{m}{
922   \seq_new:N \l_@@_degreechunks
923   \regex_extract_all:nnN { [-]+ } { #1 } \l_@@_degreechunks
924   \bamadoctype{\seq_item:Nn\l_@@_degreechunks {2} - \seq_item:Nn\l_@@_degreechunks {3}}
925   \degree{\uantwerpendocsdegree{
926     \seq_item:Nn\l_@@_degreechunks {1} -
927     \seq_item:Nn\l_@@_degreechunks {2} -
928     \seq_item:Nn\l_@@_degreechunks {3} -
929     \seq_item:Nn\l_@@_degreechunks {4} }}
930 }
931 \ExplSyntaxOff
932 </bmt | pt | ct | ex>

```

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

```

933 <*ct | pt | ex>
934 \newcommand*\programme}[3]{
935   \PackageError{uantwerpendocs}
936   {The '\protect\programme{}{}{}' macro is no longer available. Use
937     '\protect\degree{}' instead}
938   {The interface of uantwerpendocs 4.0 has been changed. Use the
939     '\protect\degree' macro to specify your degree in full text (see
940     the uantwerpendocs manual)'}
941 }
942 </ct | pt | ex>

```

`\course` For 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!

```

943 <*ct>
944 \newcommand*\coursei[2]{
945   \PackageError{uantwerpendocs}
946   {The '\protect\coursei{}' macro is no longer available. Use
947     '\protect\course{}' instead (multiple times if you need to)}
948   {The interface of uantwerpendocs 4.0 has been changed. Use the
949     '\protect\course macro instead of the \protect\coursei,
950     \protect\courseii, \protect\courseiii and \protect\courseiv macros
951     that existed earlier (see
952     the uantwerpendocs manual)'}

```

```

953 }
954 \ExplSyntaxOn
955 \seq_new:N \g_@@_courseswithcodes
956 \cs_new:Nn \@@_addcourse:nn {
957   \seq_gpush:Nn \g_@@_courseswithcodes{ \texttt{#1}~#2 }
958 }
959 \NewDocumentCommand{\course}{mm}{
960   \@@_addcourse:nn { #1 } { #2 }
961 }
962 \NewDocumentCommand{\jointcourseswithcodes}{m}{
963   \seq_use:Nn \g_@@_courseswithcodes { #1 }
964 }
965 \AtBeginDocument{
966   \seq_greverse:N \g_@@_courseswithcodes
967 }
968 \ExplSyntaxOff
969 </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.

```

970 <*ex>
971 \newcommand*{\@coursecode}{}
972 \newcommand*{\@course}{}
973 \newcommand*{\course}[2]{
974   \renewcommand*{\@coursecode}{#1}
975   \renewcommand*{\@course}{#2}
976 }
977 </ex>

```

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

```

978 <*bmt | pt>
979 \newcommand*{\diploma}[1]{
980   \PackageError{uantwerpendocs}
981   {The '\protect\diploma{}' macro is no longer available. Use
982     '\protect\degree{}' instead}
983   {The interface of uantwerpendocs 4.0 has been changed. Use the
984     '\protect\degree' macro to specify your degree in full text (see
985     the uantwerpendocs manual)}'
986 }
987 </bmt | pt>

```

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

```

988 <*pt>
989 \newcommand*\@defensedate{ERROR}
990 \newcommand*{\defensedate}[1]{\renewcommand*\@defensedate{#1}}
991 </pt>

```

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

```

992 <*pt>
993 \newcommand*\@defenselocation{Antwerpen}
994 \newcommand*\@defenselocation[1]{\renewcommand*\@defenselocation{#1}}
995 </pt>

```

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

```

996 <*ct | pt | rp>
997 \newcommand*\@titlepageimage{}
998 \newcommand*\@titlepageimage[1]{\renewcommand*\@titlepageimage{#1}}
999 </ct | pt | rp>

```

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

```

1000 <*pt>
1001 \newcommand*\@isbn{}
1002 \newcommand*\@isbn[1]{\renewcommand*\@isbn{#1}}
1003 </pt>

```

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

```

1004 <*pt>
1005 \newcommand*\@depot{}
1006 \newcommand*\@depot[1]{\renewcommand*\@depot{#1}}
1007 </pt>

```

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

```

1008 <*ct | bmt | ex>
1009 \newcommand*\@academicyear{XXX-YYYY}
1010 \newcommand*\@academicyear[1]{\renewcommand*\@academicyear{#1}}
1011 </ct | bmt | ex>

```

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

```

1012 <*ct | rp>
1013 \newcommand{\@copyrightnotices}{}
1014 \newcommand{\@copyrightnotices}[1]{\renewcommand{\@copyrightnotices}{#1}}
1015 </ct | rp>
1016 <*bmt>
1017 \newcommand{\@copyrightnotices}{\disclaimer{\@bamadoctype}}
1018 </bmt>

```

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

```

1019 <*le>
1020 \newcommand*\@sender{< Specify sender using

```

```

1021 \textbackslash{}sender\{name}\{role\} >}
1022 \newcommand*{\@senderrole}{~}
1023 \newcommand*{\sender}[2]{\renewcommand*{\@sender}{#1}\renewcommand*{\@senderrole}{#2}}
1024 </le>

```

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

```

1025 <*le | ex>
1026 \newcommand*{\logo}[1]{\renewcommand*{\@logo}{#1}}
1027 </le | ex>

```

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

```

1028 <*le>
1029 \newcommand*{\@unit}{}
1030 \newcommand*{\unit}[1]{\renewcommand*{\@unit}{#1}}
1031 </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)

```

1032 <*le>
1033 \ExplSyntaxOn
1034 \seq_new:N \g_@@_emailaddresses
1035 \cs_new:Nn \@_addemailaddress:nn {
1036   \seq_gpush:Nn \g_@@_emailaddresses {#1\tat{}}#2}
1037 }
1038 \NewDocumentCommand{\email}{mm}{
1039   \@_addemailaddress:nn { #1 } { #2 }
1040 }
1041 \NewDocumentCommand{\jointemails}{m}{
1042   \seq_use:Nn \g_@@_emailaddresses { #1 }
1043 }
1044 \NewDocumentCommand{\ifemails}{m}{
1045   \seq_if_empty:NTF \g_@@_emailaddresses {} {#1}
1046 }
1047 \AtBeginDocument{
1048   \seq_greverse:N \g_@@_emailaddresses
1049 }
1050 \ExplSyntaxOff
1051 </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)

```

1052 <*le>
1053 \ExplSyntaxOn
1054 \seq_new:N \g_@@_phonenumber
1055 \cs_new:Nn \@_addphonenumber:n {
1056   \seq_gpush:Nn \g_@@_phonenumber {#1}
1057 }
1058 \NewDocumentCommand{\phone}{m}{

```

```

1059 \@@_addphonenumber:n { #1 }
1060 }
1061 \NewDocumentCommand{\jointphones}{m}{
1062 \seq_use:Nn \g_@@_phonenumber { #1 }
1063 }
1064 \NewDocumentCommand{\ifphones}{m}{
1065 \seq_if_empty:NTF \g_@@_phonenumber {} {#1}
1066 }
1067 \AtBeginDocument{
1068 \seq_greverse:N \g_@@_phonenumber
1069 }
1070 \ExplSyntaxOff
1071 </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)

```

1072 <*le>
1073 \ExplSyntaxOn
1074 \seq_new:N \g_@@_faxnumbers
1075 \cs_new:Nn \@@_addfaxnumber:n {
1076 \seq_gpush:Nn \g_@@_faxnumbers {#1}
1077 }
1078 \NewDocumentCommand{\fax}{m}{
1079 \@@_addfaxnumber:n { #1 }
1080 }
1081 \NewDocumentCommand{\jointfaxes}{m}{
1082 \seq_use:Nn \g_@@_faxnumbers { #1 }
1083 }
1084 \NewDocumentCommand{\iffaxes}{m}{
1085 \seq_if_empty:NTF \g_@@_faxnumbers {} {#1}
1086 }
1087 \AtBeginDocument{
1088 \seq_greverse:N \g_@@_faxnumbers
1089 }
1090 \ExplSyntaxOff
1091 </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)

```

1092 <*le>
1093 \ExplSyntaxOn
1094 \seq_new:N \g_@@_mobilenumbers
1095 \cs_new:Nn \@@_addmobilenumber:n {
1096 \seq_gpush:Nn \g_@@_mobilenumbers {#1}
1097 }
1098 \NewDocumentCommand{\mobile}{m}{
1099 \@@_addmobilenumber:n { #1 }
1100 }
1101 \NewDocumentCommand{\jointmobiles}{m}{
1102 \seq_use:Nn \g_@@_mobilenumbers { #1 }
1103 }

```

```

1104 \NewDocumentCommand{\ifmobiles}{m}{
1105   \seq_if_empty:NTF \g_@@_mobilenumbers {} {#1}
1106 }
1107 \AtBeginDocument{
1108   \seq_greverse:N \g_@@_mobilenumbers
1109 }
1110 \ExplSyntaxOff
1111 \</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).

```

1112 \<le>
1113 \newcommand*\@returnaddress{<specify return-address using \textbackslash\single-
    line-return-address\>}
1114 \renewcommand*\@returnaddress[1]{\renewcommand*\@returnaddress{#1}}
1115 \</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).

```

1116 \<le>
1117 \newcommand*\@to{<Specify addressee using \textbackslash{}to\{name\}\>}
1118 \renewcommand*\@to[1]{\renewcommand*\@to{#1}}
1119 \</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).

```

1120 \<le>
1121 \newcommand*\@toorganization{}
1122 \newcommand*\@toorganization[1]{\renewcommand*\@toorganization{#1}}
1123 \</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).

```

1124 \<le>
1125 \newcommand*\@toaddress{}
1126 \newcommand*\@toaddress[1]{\renewcommand*\@toaddress{#1}}
1127 \</le>

```

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

```

1128 \<le>
1129 \newcommand*\@subject{-}
1130 \newcommand*\@subject[1]{\renewcommand*\@subject{#1}}
1131 \</le>

```

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

```

1132 <*le>
1133 \renewcommand*\opening}[1]{#1}
1134 </le>

```

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

```

1135 <*le>
1136 \newcommand*\closing{<specify a closing formula using
1137 \textbackslash{}closing\{\}>}
1138 \renewcommand*\closing}[1]{\renewcommand*\@closing}{#1}}
1139 </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

```

1140 <*le>
1141 \newcommand*\@signature{\vspace*{8ex}}
1142 \renewcommand*\signature}[1]{\renewcommand*\@signature}{#1}}
1143 </le>

```

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

```

1144 <*le>
1145 \newcommand*\@carboncopy{}
1146 \newcommand*\carboncopy}[1]{\renewcommand*\@carboncopy}{#1}}
1147 </le>

```

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

```

1148 <*le>
1149 \newcommand*\@enclosed{}
1150 \newcommand*\enclosed}[1]{\renewcommand*\@enclosed}{#1}}
1151 </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).

```

1152 <*pt | rp | le>
1153 \newcommand*\@address{
1154   \PackageError{uantwerpendocs}
1155   {Please, set your multi-line address and contact details using the
1156    '\protect\address{}' command in the preamble of your document}
1157   {See the uantwerpendocs manual}
1158 }
1159 </pt | rp | le>
1160 %
1161 <pt | rp>\newcommand*\address}[1]{\renewcommand*\@address}{#1}}
1162 <le>\renewcommand*\address}[1]{\renewcommand*\@address}{#1}}
1163 %   \end{macrocode}
1164 % \end{macro}
1165 %

```



```

1166 % \begin{macro}{\exampart}
1167 %   This macro will set the |\@examgroupnumber| tag that will be used on
1168 %   the exam title page.
1169 %   \begin{macrocode}
1170 <*ex>
1171 \newcommand*{\@exampart}{}
1172 \newcommand*{\exampart}[1]{\renewcommand*{\@exampart}{#1}}
1173 </ex>

```

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

```

1174 <*ex>
1175 \newcommand*{\@examgroupnumber}{}
1176 \newcommand*{\examgroupnumber}[1]{\renewcommand*{\@examgroupnumber}{#1}}
1177 </ex>

```

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

```

1178 <*ex>
1179 \newcommand*{\@examdate}{TBD}
1180 \newcommand*{\examdate}[1]{\renewcommand*{\@examdate}{#1}}
1181 </ex>

```

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

```

1182 <*ex>
1183 \newcommand*{\@examlength}{TBD}
1184 \newcommand*{\examlength}[1]{\renewcommand*{\@examlength}{#1}}
1185 </ex>

```

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

```

1186 <*ex>
1187 \newcommand*{\@tstart}{TBD}
1188 \newcommand*{\tstart}[1]{\renewcommand*{\@tstart}{#1}}
1189 </ex>

```

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

```

1190 <*ex>
1191 \newcommand*{\@tend}{TBD}
1192 \newcommand*{\tend}[1]{\renewcommand*{\@tend}{#1}}
1193 </ex>

```

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

```

1194 <*ex>
1195 \ExplSyntaxOn
1196 \seq_new:N \g_@@_rooms
1197 \cs_new:Nn \@@_addroom:n {
1198   \seq_gpush:Nn \g_@@_rooms { #1 }

```

```

1199 }
1200 \NewDocumentCommand{\room}{m}{
1201   \@@_addrroom:n { #1 }
1202 }
1203 \NewDocumentCommand{\jointrooms}{m}{
1204   \seq_use:Nn \g_@@_rooms { #1 }
1205 }
1206 \NewDocumentCommand{\roomsname}{}{
1207   \if_int_compare:w \seq_count:N \g_@@_rooms > 1
1208     \uantwerpendocsprop{roomsname}
1209   \else:
1210     \uantwerpendocsprop{roomname}
1211   \fi:
1212 }
1213 \AtBeginDocument{
1214   \seq_greverse:N \g_@@_rooms
1215 }
1216
1217 \ExplSyntaxOff
1218 </ex>

```

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

```

1219 <*ex>
1220 \newcommand{\@extrainfo}{}
1221 \newcommand\extrainfo[2][separatepage]{
1222   \ifthenelse{\equal{#1}{separatepage}}{
1223     % then
1224     \renewcommand{\@extrainfo}{\clearpage #2 \clearpage}
1225   }
1226   {
1227     % else
1228     \ifthenelse{\equal{#1}{firstpage}}
1229     {
1230       \renewcommand{\@extrainfo}{#2}
1231     }
1232     {
1233       \PackageError{uantwerpendocs}
1234       {The first (optional) argument of '\protect\extrainfo' can
1235        only be 'separatepage' or 'firstpage'}
1236       {See the uantwerpendocs manual}'
1237     }
1238   }
1239 }
1240 </ex>

```

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

pages.

```
1241 <*ex>
1242 \newcommand*{\@studentnr}{0}
1243 \newcommand*{\studentnr}[1]{\renewcommand*{\@studentnr}{#1}}
1244 </ex>
```

6.16 Dirty reverse video tricks

```
1245 <*bmt>
1246 \ExplSyntaxOn
1247 \seq_new:N \l_title_seq
1248 \cs_generate_variant:Nn \seq_set_split:Nnn { Nnf }
1249 \cs_new_nopar:Npn \@@_reversevideo:f #1
1250 {
1251   \seq_set_split:Nnf \l_title_seq {~} { #1 }
1252   \seq_set_map:NNn \l_title_seq \l_title_seq {\@uantwerpendocshl{##1}}
1253   \seq_use:Nnnn \l_title_seq { ~ } { ~ } { ~ }
1254 }
1255 \NewDocumentCommand{\reversevideo}{m}{
1256   \@@_reversevideo:f { #1 }
1257 }
1258 \ExplSyntaxOff
1259 </bmt>
```

6.17 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:

```
1260 <*ct>
1261 \if@twoside
1262 \lhead[\thepage]{\slshape\rightmark}
1263 \chead[]{}
1264 \rhead[\slshape\leftmark]{\thepage}
1265 \lfoot[\uantwerpendocsprop{org-ua} -- \@facultyacronym]{\courseversion}
1266 \cfoot[]{}
1267 \rfoot[]{\@title}\ifdefvoid{\@subtitle}{}{ --- \@subtitle}
1268 \else
1269 \lhead[]{\leftmark}
1270 \chead[]{}
1271 \rhead[]{\thepage}
1272 \lfoot[]{\@courseversion}
1273 \cfoot[]{UAntwerpen--\@facultyacronym}
1274 \rfoot[]{\@title}
1275 \fi
1276 </ct>
```

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

```
1277 <*bmt>
1278 \AtBeginDocument{
1279   \setlength{\headheight}{13.7pt}
1280   \renewcommand*{\headrulewidth}{0pt}
```

```

1281 \renewcommand*{\footrulewidth}{0pt}
1282 \newsavebox\smalllogo
1283 \savebox\smalllogo{\raisebox{-1ex}{\includegraphics[width=2.5cm]{\logopos}}}
1284 \if@twoside
1285 \lhead[]{\footnotesize\slshape\rightmark}
1286 \chead[]{}
1287 \rhead[\footnotesize\slshape\leftmark]{}
1288 \lfoot[\footnotesize\thepage~\textcolor{maincolor}{\textbf{}}]{\usebox\smalllogo}
1289 \cfoot[\footnotesize@bamadotype]{\footnotesize@bamadotype}
1290 \rfoot[\usebox\smalllogo]{\footnotesize\textcolor{maincolor}{\textbf{}}~\thepage}
1291 \else
1292 \lhead[]{\footnotesize\slshape\leftmark}
1293 \chead[]{}
1294 \rhead[]{}
1295 \lfoot[]{\usebox\smalllogo}
1296 \cfoot[]{\footnotesize@bamadotype}
1297 \rfoot[]{\footnotesize\textcolor{maincolor}{\textbf{}}~\thepage}
1298 \fi
1299 \fancypagestyle{plain}{\pagestyle{fancy}}
1300 % \patchcmd{chapter}{\thispagestyle{plain}}{\thispagestyle{fancy}}{}{}
1301 }
1302 </bmt>

```

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

```

1303 <*pt | rp>
1304 \if@twoside
1305 \lhead[\thepage]{\slshape\rightmark}
1306 \chead[]{}
1307 \rhead[\slshape\leftmark]{\thepage}
1308 \lfoot[]{}
1309 \cfoot[]{}
1310 \rfoot[]{}
1311 \else
1312 \lhead[]{\leftmark}
1313 \chead[]{}
1314 \rhead[]{\thepage}
1315 \lfoot[]{}
1316 \cfoot[]{}
1317 \rfoot[]{}
1318 \fi
1319 </pt | rp>

```

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

```

1320 <*le>
1321 \lhead[]{}
1322 \chead[]{}
1323 \rhead[]{}
1324 \lfoot[\small\textcolor{gray}{\@date}]{\textcolor{gray}{\@date}}
1325 \cfoot[]{}
1326 \rfoot[\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}]{\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}}
1327
1328 </le>

```

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

```
1329 <*ex>
1330 \lhead[]{}
1331 \chead[]{}
1332 \cfoot[\small \thepage/\pageref{lastpage}]{\small\thepage/\pageref{lastpage}}
1333 \if@examiner
1334 \rhead[\small EXAMINER VERSION]{\small EXAMINER VERSION}
1335 \AddToShipoutPicture{
1336   \put(60,40){\rotatebox{60}{\textcolor{watermark}{
1337     \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}%
1338     \selectfont Examiner Version}}}}
1339 \else
1340 \rhead[\small Student nr. \@studentnr]{\small Student nr. \@studentnr}
1341 \fi
1342 </ex>
```

Some common code remains:

```
1343 <*ct>
1344 \setlength{\headheight}{13.7pt}
1345 \renewcommand*{\headrulewidth}{1pt}
1346 \renewcommand*{\footrulewidth}{1pt}
1347 \pagenumbering{arabic}
1348 </ct>
1349 <*pt | rp | le>
1350 \setlength{\headheight}{13.7pt}
1351 \renewcommand*{\headrulewidth}{0pt}
1352 \renewcommand*{\footrulewidth}{0pt}
1353 </pt | rp | le>
1354 <*ex>
1355 \setlength{\headheight}{13.7pt}
1356 \renewcommand*{\headrulewidth}{0pt}
1357 </ex>
```

Remains to take care of filling

```
1358 <*ct | mt | pt | rp | le>
1359 \if@filled\else
1360   \raggedright
1361 \fi
1362 \raggedbottom
1363 \onecolumn
1364 </ct | mt | pt | rp | le>
```

6.18 Copyright notice

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

```
1365 <*ct | rp>
1366 \newcommand{\@crnotice}{
1367   {
1368     \setlength\parindent{0em}
1369     This document has been typeset using \LaTeX{} and the
```

```

1370 \texttt{uantwerpendocs} package.\\
1371 \@copyrightnotices
1372
1373 </ct | rp)
1374 <ct) \@courseversion
1375 <*ct | rp)
1376
1377 CONFIDENTIAL AND PROPRIETARY.
1378
1379 \copyright{} \@versionyear{} \uantwerpendocsprop{org-ua},
1380 \uantwerpendocsprop{arr}.
1381 }
1382 }
1383 </ct | rp)
1384 <*bmt)
1385 \newcommand{\@crnotice}{
1386 \@copyrightnotices
1387 }
1388 </bmt)

```

6.19 Fancy chapter headers for the phdthesis and report class

```

1389 <*pt | rp)
1390 \def\@makechapterhead#1{%
1391 \vspace*{1ex}%
1392 \begin{flushright}
1393 \makebox[Opt][l]{\rule[-0.4em]{10cm}{1.8em}}\textcolor{white}
1394 {\LARGE\textbf{-\chaptername~}}
1395 \raisebox{-24pt}{
1396 \begin{tikzpicture}
1397 \foreach \theta in {0,5,...,355} {
1398 \node[color=white] at (\theta:0.025)
1399 {\fontsize{72}{12}\selectfont\textbf{\thechapter}};
1400 }
1401 \node[color=gray] at (0,0)
1402 {\fontsize{72}{12}\selectfont\textbf{\thechapter}};
1403 \end{tikzpicture}
1404 }\hspace*{-8pt}
1405 \par\nobreak
1406 \interlinepenalty\@M
1407 \huge\textbf{\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1}}
1408 \par\nobreak
1409 \end{flushright}
1410 \rule{\textwidth}{1pt}
1411 \vspace{5\p@}\par\nobreak
1412 }
1413 \def\@schapter#1{%
1414 \@makeschapterhead{#1}%
1415 \@afterheading
1416 }
1417 \def\@makeschapterhead#1{%
1418 \vspace*{1ex}%

```

```

1419 \begin{flushright}
1420   \LARGE\textbf{\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~\#1}}
1421 \end{flushright}
1422 \rule{\textwidth}{1pt}
1423 \vspace{5\p@}\par
1424 }
1425 % overwrite appendix
1426 \def\appendix{
1427   \setcounter{chapter}{0}
1428   \renewcommand*\thechapter{\Alph{chapter}}
1429   \renewcommand*\chaptername\appendixname
1430 }
1431 </pt | rp>

```

6.20 Fancy chapter headers for the bamathesis class

```

1432 <*bmt>
1433 \addtokomafont{section}{\color{basecolor}}
1434 \addtokomafont{chapter}{\color{basecolor}}
1435 </bmt>

```

6.21 Title page for the masterthesis and coursetext classes

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

`\maketitle` The macro for the coursetext class:

```

1436 <*ct>
1437 \renewcommand\maketitle{%
1438   \pagestyle{empty}
1439   \begin{titlepage}
1440     \AddToShipoutPicture*{%
1441       \put(0,0){%
1442         \if@modern
1443         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1444           \clip (0,0) rectangle(\paperwidth,\paperheight);
1445
1446           \begin{scope}
1447             \clip (2.125,20.192) rectangle (\paperwidth,6);
1448             \fill[sidecolor]
1449             (2.125,20.192) rectangle (\paperwidth,6);
1450             \node[anchor=south west]
1451             at (2.125,6)
1452             {\ifx\@titlepageimage\@empty
1453              \else
1454              \includegraphics[keepaspectratio,
1455                scale=0.01,
1456                min size={18.875cm}{14.192cm}]{\@titlepageimage}
1457              \fi};
1458           \end{scope}
1459         }
1460       }

```

```

1461     \node
1462     [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1463     at (2.125,27)
1464     {
1465     \textsf{\textbf{\@title}}
1466     };
1467
1468     \node
1469     [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1470     at (2.125,25.5)
1471     {
1472     \textsf{\textbf{\@subtitle}}
1473     };
1474
1475     \node
1476     [anchor=base west,maincolor,text width=13.75cm,align=left,font=\LARGE]
1477     at (2.125,24)
1478     {\textsf{\textbf{\@author}}};
1479
1480
1481     \node
1482     [anchor=west,text width=13.75cm,align=left,font=\large,uauaside]
1483     at (2.125,22)
1484     {\textsf{\jointcourseswithcodes{\}}};
1485
1486     \fill[maincolor] (2.125,6)
1487     -- (\paperwidth,6)
1488     -- (\paperwidth,2.625)
1489     -- (2.55,2.625)
1490     arc (-90:-180:0.425)
1491     -- cycle;
1492
1493     \node[white,anchor=west,align=left,font=\large]
1494     (SN) at (2.55,5.1)
1495     {
1496     \begin{tabular}{@{}l@{-\,},p{14.5cm}}
1497     \textsf{\lecturersname}
1498     & \textsf{\textbf{\jointlecturers{ | }}}
1499     \end{tabular}
1500     };
1501
1502     \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
1503     at (2.55,3.7)
1504     {\textsf{\@degree}}\
1505     \textsf{\textbf{\@faculty}} \ifx\@department\empty\else |
1506     \@department{} \fi | \@academicyear \hfill
1507     \@publishercode}\
1508     \textsf{\@publisher}};
1509
1510     \node[anchor=west] at (2.125,1.313)
1511     {\includegraphics[width=4.75cm]{\logopos}};
1512 \end{tikzpicture}
1513 \else
1514 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]

```



```

1515 \clip (0,0) rectangle(\paperwidth,\paperheight);
1516 \if@cameraready
1517 \else
1518 \fill[uauamain] (0,29.7) -- (2.2,29.7) -- (2.2,21.435) arc
1519 (0:-90:0.235) -- (0,21.2) -- cycle;
1520 \node[anchor=west] at (2.2,1.8)
1521 {\includegraphics[width=5.2cm]{\logoposua}};
1522 \fi
1523
1524 \node
1525 [anchor=north west,text width=14.75cm,align=left]
1526 at (5,27.1)
1527 {
1528 \fontsize{16}{20}\selectfont\textsf{\textbf{\uantwerpendocsprop{acyearname}}}\[1ex]
1529 \fontsize{16}{20}\selectfont\textsf{\@academicyear}
1530 };
1531
1532 \node
1533 [anchor=north west,text width=14.75cm,align=left]
1534 at (5,22.7)
1535 {
1536 \fontsize{16}{20}\selectfont\textsf{\@faculty{}}
1537 \ifx\@department\empty\else | \@department{} \fi
1538 };
1539
1540 \node
1541 [anchor=north west,text width=14.75cm,align=left] (title)
1542 at (5,20.9)
1543 {
1544 \fontsize{24}{30}\selectfont\textsf{\textbf{\@title}}\[1ex]
1545 \fontsize{18}{24}\selectfont\textsf{\@subtitle}
1546 };
1547
1548 \node
1549 [anchor=north west,below=of title,
1550 text width=14.75cm,align=left,
1551 yshift=-0.5cm]
1552 {
1553 \fontsize{12}{15}\selectfont{\textsf{\@degree}}
1554 };
1555
1556 \node
1557 [anchor=north west,text width=14.75cm,align=left] (title)
1558 at (5,13.3)
1559 {
1560 \fontsize{12}{15}\selectfont\textsf{\textbf{\jointlecturers{\}}}}
1561 };
1562
1563 \node
1564 [anchor=north west,text width=14.75cm,align=left] (title)
1565 at (5,10)
1566 {
1567 \fontsize{12}{15}\selectfont\textsf{\jointcourseswithcodes{\}}
1568 };

```

```

1569
1570     \node[anchor=east]
1571     at (19,1.8)
1572     {
1573         \fontsize{12}{15}\selectfont\textsf{\@publishercode}
1574     };
1575
1576     \end{tikzpicture}
1577     \fi
1578 }
1579 }
1580 \end{titlepage}%
1581 ~\par\relax
1582 \clearpage
1583 \if@copyright
1584 \backgroundsetup{contents={Copyright University of Antwerp, All
1585     Rights Reserved}}
1586 \fi
1587 \vspace*{\stretch{1}}
1588 \@crnotice
1589 \clearpage
1590 \setcounter{footnote}{0}%
1591 \global\let\thanks\relax
1592 \global\let\maketitle\relax
1593 \global\let\@thanks\@empty
1594 \global\let\title\relax
1595 \global\let\author\relax
1596 \global\let\date\relax
1597 \global\let\and\relax
1598 \pagestyle{fancy}
1599 \thispagestyle{empty}
1600 }
1601 </ct>

```

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

```

1602 <*ct>
1603 \newcommand\makefinalpage{
1604     \if@cameraready
1605     \else
1606     \cleardoublepage
1607     \thispagestyle{empty}
1608     \if@copyright\NoBgThispage\fi
1609     ~% intentionally blank page
1610     \clearpage
1611     \thispagestyle{empty}
1612     \if@copyright\NoBgThispage\fi
1613     \AddToShipoutPicture*{%
1614         \put(0,0){%
1615             \if@modern
1616             \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1617                 \clip (0,0) rectangle(\paperwidth,\paperheight);
1618                 \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
1619             \end{tikzpicture}

```

```

1620     \else
1621     \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1622         \clip (0,0) rectangle(\paperwidth,\paperheight);
1623         \fill[uauamain] (0,21.2) rectangle (21,29.7);
1624     \end{tikzpicture}
1625     \fi
1626 }
1627 }
1628 ~
1629 \fi
1630 }
1631 </ct>

```

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

```

1632 <*bmt>
1633 \renewcommand\maketitle{%
1634   \pagestyle{empty}
1635   \begin{titlepage}
1636     \AddToShipoutPicture*{%
1637       \put(0,0){%
1638         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1639           \clip (0,0) rectangle(\paperwidth,\paperheight);
1640           \node
1641             [anchor=north east,align=right]
1642             at (\paperwidth-1.6cm,\paperheight-2.6cm)
1643             {\bfseries\large
1644              \uantwerpendocsprop{acyearname}\[.75ex]\Large\@academicyear};
1645           \node (title)
1646             [anchor=north west,align=left,
1647             text width={\paperwidth-5.1cm},font=\Huge,text=white,
1648             xshift=1pt]
1649             at (3.5cm,\paperheight-6.4cm)
1650             {\sethlcolor{maincolor}%
1651              \textsf{\textbf{\reversevideo{\@title}}}\[.75ex]
1652              \textsf{\reversevideo{\@subtitle}}};
1653           \node
1654             [anchor=north west,font=\LARGE,yshift=-1cm,xshift=-1pt]
1655             at (title.south west)
1656             {%
1657              \textsf{\textbf{\@author}}
1658             };
1659           \node
1660             [anchor=west,align=left,
1661             text width={\paperwidth-5.1cm},font=\normalsize]
1662             at (3.5cm,12cm)
1663             {\textsf{\@bamadoctype}\[.75ex]
1664              \textsf{\textbf{\@degree}}
1665             };
1666           \node
1667             [anchor=west,align=left,
1668             text width={\paperwidth-5.1cm},font=\normalsize]

```

```

1671         at (3.5cm,7.5cm)
1672         {\supervisorsname{\}}
1673         \textbf{\joint supervisorswithaffiliation{\}{-~-}}%
1674         \cosupervisorsname{\}
1675         \textbf{\joint cosupervisorswithaffiliation{\}{-~-}}%
1676         \extsupervisorsname{\}
1677         \textbf{\joint textsupervisorswithaffiliation{\}{} }
1678     };
1679
1680     \ifx\@companylogo\@empty
1681     \else
1682     \node[anchor=south east] at
1683     (\pagewidth-1.6cm,1.5cm)
1684     {\@companylogo};
1685     \fi
1686
1687
1688     \node[anchor=south west] at
1689     (1.6cm,1.5cm)
1690     {\includegraphics[width=6.2cm]{\logopos}};
1691 \end{tikzpicture}
1692 }
1693 }
1694 \end{titlepage}%
1695 ~\par\relax
1696 \clearpage
1697 \vspace*{\stretch{1}}
1698 \@crnotice
1699 \clearpage
1700 \setcounter{footnote}{0}%
1701 \global\let\thanks\relax
1702 \global\let\maketitle\relax
1703 \global\let\@thanks\@empty
1704 \global\let\title\relax
1705 \global\let\author\relax
1706 \global\let\date\relax
1707 \global\let\and\relax
1708 \pagestyle{fancy}
1709 \thispagestyle{empty}
1710 }
1711 </bmt>

```

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

```

1712 <*bmt>
1713 \newcommand\makefinalpage{
1714 }
1715 </bmt>

```

6.22 Title page for the `phdthesis` classes

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

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

```
1716 (*pt)
1717 \renewcommand\maketitle{%
1718   \pagestyle{empty}
1719   \if@bare\else
1720   \begin{titlepage}
1721     \AddToShipoutPicture*{%
1722       \put(0,0){%
1723         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1724           \useasboundingbox (0,0) rectangle(\paperwidth,\paperheight);
1725           \fill[lightgray]
1726             (2.125,19) rectangle (\paperwidth+3mm,6);
1727           \begin{scope}
1728             \clip (2.125,19) rectangle (\paperwidth+3mm,6);
1729             \node[anchor=south west]
1730               at (2.125,6)
1731               {\ifx\@titlepageimage\@empty
1732                \else
1733                 \includegraphics[keepaspectratio,
1734                  scale=0.01,
1735                  min size={16.175cm}{13cm}]{\@titlepageimage}
1736                \fi};
1737           \end{scope}
1738
1739           \node
1740             [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1741             at (2.125,23.5)
1742             {
1743               \textsf{\textbf{\@title}}
1744             };
1745
1746           \node
1747             [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1748             at (2.125,21.5)
1749             {
1750               \textsf{\textbf{\@subtitle}}
1751             };
1752
1753           \node
1754             [anchor=base west,maincolor,
1755             text width=13.75cm,align=left,font=\LARGE]
1756             at (2.125,20)
1757             {\textsf{\textbf{\@author}}};
1758
1759           \fill[maincolor] (2.125,6)
1760             -- (\paperwidth+3mm,6)
1761             -- (\paperwidth+3mm,2.625)
1762             -- (2.55,2.625)
1763             arc (-90:-180:0.425)
1764             -- cycle;
1765
1766           \node[white,anchor=west,align=left,font=\large]
1767             (SN) at (2.55,4.9)
```

```

1768     {
1769         \begin{tabular}{@{}l@{-\,}p{11.5cm}}
1770             \textsf{\supervisorsname{}}
1771             & \textsf{\textbf{\joinsupervisors{ | }{}}}
1772         \end{tabular}
1773     };
1774
1775
1776     \node[white,anchor=west,text width=14.5cm,align=left,font=\small]
1777     at (2.55,3.7)
1778     {\textsf{\uantwerpendocsprop{pthesisnamei}
1779         \@degree{}}\}
1780     \textsf{\textbf{\@faculty{}} \ifx\@department\empty\else |
1781         \@department{ } \fi | \@defenselocation, \@defensedate}}};
1782
1783     \node[anchor=west] at
1784     (2.125,1.313)
1785     {\includegraphics[width=4.75cm]{\logoposua}};
1786     \end{tikzpicture}
1787 }
1788 }
1789 \end{titlepage}%
1790 ~\par\relax
1791 \cleardoublepage
1792 \fi
1793 \begin{center}
1794     \includegraphics[width=4.75cm]{\logoposua}
1795     \vfill
1796     \@faculty\
1797     \@department\par
1798     \vfill
1799     \Huge\textsf{\@title}\par
1800     \large\textsf{\@subtitle}\par
1801     \vfill
1802     \normalsize\uantwerpendocsprop{pthesisnamei}\
1803     \@degree\
1804     \uantwerpendocsprop{pthesisnameii}\
1805     \medskip
1806     \textbf{\@author}
1807     \vfill
1808     \begin{minipage}[b]{0.4\textwidth}
1809         \@defenselocation, \@defensedate
1810     \end{minipage}
1811     \hfill
1812     \begin{minipage}[b]{0.4\textwidth}
1813         \flushright
1814         \supervisorsname{\}
1815         \joinsupervisors{\}\{-}
1816     \end{minipage}
1817 \end{center}
1818 \clearpage
1819 \noindent\textbf{\uantwerpendocsprop{juryname}}\hfill\|[1ex]
1820 \textbf{\uantwerpendocsprop{jurychairmanname}}\hfill\break
1821 \@jurychairman{\}\ifdefvoid{\@jurychairmanaff}\{-}, \@jurychairmanaff\}

```

```

1822 \hfill\break
1823 \textbf{\supervisorsname{}}\hfill\break
1824 \jointsupervisorswithaffiliation{\}\{\}\}
1825 \hfill\break
1826 \textbf{\uantwerpendocsprop{jurymembersname{}}}\hfill\break
1827 \jointjurymembers{\}\}
1828 \hfill\break
1829 \vfill
1830 \noindent\textbf{Contact}\}
1831 \smallskip
1832 \@author\}
1833 \@affiliation\}
1834 \@address\}
1835 \vfill
1836 \noindent\copyright{ } \@defensedate{ } \@author\}
1837 \uantwerpendocsprop{arr}.
1838 \vfill
1839 \noindent\begin{minipage}[b]{.5\linewidth}
1840   \ifdefempty{\@isbn}{-}{ISBN \@isbn}-\}
1841   \ifdefempty{\@depot}{-}{Wettelijk depot \@depot}-\}
1842 \end{minipage}
1843 \hfill
1844 \ifdefempty{\@isbn}{-}{
1845   \begin{minipage}[b]{.5\linewidth}
1846     \expandafter\EAN \@isbn
1847   \end{minipage}
1848 }
1849 \thispagestyle{empty}
1850 \ifx\@titel\empty
1851 \else
1852 \clearpage
1853 \begin{center}
1854   \vfill
1855   ~
1856   \vfill
1857   Dutch title:
1858   \vfill
1859   \Huge\textsf{\@titel}\par
1860   \large\textsf{\@subtitel}\par
1861   \vfill
1862   ~
1863   \vfill
1864 \end{center}
1865 \fi
1866 \setcounter{footnote}{0}%
1867 \global\let\thanks\relax
1868 \global\let\maketitle\relax
1869 \global\let\@thanks\@empty
1870 \global\let\title\relax
1871 \global\let\author\relax
1872 \global\let\date\relax
1873 \global\let\and\relax
1874 \clearpage
1875 \pagestyle{fancy}

```

```

1876 \thispagestyle{empty}
1877 }
1878 </pt>

```

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

```

1879 <*pt>
1880 \newcommand\makefinalpage{
1881 \if@bare\else
1882 \cleardoublepage
1883 \thispagestyle{empty}
1884 ~% intentionally blank page
1885 \clearpage
1886 \thispagestyle{empty}
1887 \AddToShipoutPicture*{%
1888 \put(0,0){%
1889 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1890 \useasboundingbox (0,0) rectangle (\paperwidth,\paperheight);
1891 \fill[sidecolor] (-3mm,-3mm) rectangle (2.125cm,2.625cm);
1892 \end{tikzpicture}
1893 }
1894 }
1895 ~
1896 \fi
1897 }
1898 </pt>

```

6.23 Title page for the report classes

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

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

```

1899 <*rp>
1900 \renewcommand\maketitle{%
1901 \pagestyle{empty}
1902 \begin{titlepage}
1903 \AddToShipoutPicture*{%
1904 \put(0,0){%
1905 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1906 \clip (0,0) rectangle(\paperwidth,\paperheight);
1907 \fill[lightgray]
1908 (2.125,20.192) rectangle (\paperwidth,6);
1909 \begin{scope}
1910 \clip (2.125,20.192) rectangle (\paperwidth,6);
1911 \node[anchor=south west]
1912 at (2.125,6)
1913 {\ifx\@titlepageimage\@empty
1914 \else
1915 \includegraphics[keepaspectratio,
1916 scale=0.01,

```



```

1917         min size={18.875cm}{14.192cm}]{\@titlepageimage}
1918         \fi};
1919     \end{scope}
1920
1921     \node
1922     [anchor=west,text width=17cm,align=left,font=\Huge,uauaside]
1923     at (2.125,\paperheight-3cm)
1924     {
1925         \textsf{\textbf{\@title}}
1926     };
1927
1928     \node
1929     [anchor=west,text width=17cm,align=left,font=\Large,uauaside]
1930     at (2.125,\paperheight-5cm)
1931     {
1932         \textsf{\textbf{\@subtitle}}
1933     };
1934
1935     \node
1936     [anchor=base west,maincolor,
1937     text width=17cm,align=left,font=\LARGE]
1938     at (2.125,\paperheight-6.5cm)
1939     {\textsf{\textbf{\@author}}};
1940
1941     \fill[maincolor] (2.125,6)
1942     -- (\paperwidth,6)
1943     -- (\paperwidth,2.625)
1944     -- (2.55,2.625)
1945     arc (-90:-180:0.425)
1946     -- cycle;
1947
1948     \node[white,anchor=west,text width=17cm,align=left,font=\small]
1949     at (2.55,5.3)
1950     {\textsf{\textbf{\@extra}}};
1951
1952     \node[white,anchor=west,text width=17cm,align=left,font=\small]
1953     at (2.55,4)
1954     {\textsf{\textbf{\@affiliation{}
1955         | \@versionyear}}\
1956         \@address}};
1957
1958     \node[anchor=west] at
1959     (2.125,1.313)
1960     {\includegraphics[width=4.75cm]{\logopos}};
1961     \end{tikzpicture}
1962     }
1963     }
1964 \end{titlepage}%
1965 ~\par\relax
1966 \cleardoublepage
1967 \begin{center}
1968     \includegraphics[width=4.75cm]{\logopos}
1969     \vfill
1970     \@affiliation\

```

```

1971 \extra\par
1972 \vfill
1973 \Huge\textsf{\@title}\par
1974 \large\textsf{\@subtitle}\par
1975 \vfill
1976 \textbf{\@author}
1977 \vfill
1978 \end{center}
1979 \clearpage
1980 \vfill
1981 \textbf{Contact}\
1982 \smallskip
1983 \@author\
1984 \@affiliation\
1985 \@address\
1986 \vfill
1987 \copyright{} \@versionyear{} \@author\
1988 \uantwerpendocsprop{arr}.
1989 \vfill
1990 \setcounter{footnote}{0}%
1991 \global\let\thanks\relax
1992 \global\let\maketitle\relax
1993 \global\let\@thanks\@empty
1994 \global\let\title\relax
1995 \global\let\author\relax
1996 \global\let\date\relax
1997 \global\let\and\relax
1998 \pagestyle{fancy}
1999 \thispagestyle{empty}
2000 \
2001 }
2002 </rp>

```

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

```

2003 <rp>
2004 \newcommand\makefinalpage{
2005 \cleardoublepage
2006 \thispagestyle{empty}
2007 ~% intentionally blank page
2008 \clearpage
2009 \thispagestyle{empty}
2010 \begin{tikzpicture}[remember picture,overlay]
2011 \node at (current page.center) {
2012 \begin{tikzpicture}[inner sep=0pt]
2013 \clip (0,0) rectangle(\paperwidth,\paperheight);
2014 \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
2015 \end{tikzpicture}
2016 };
2017 \end{tikzpicture}
2018 }
2019 </rp>

```

6.24 Title page for the letter class

6.24.1 Title Page

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

```
2020 <*\e>
2021 \newcommand\maketitle{%
2022   \pagestyle{fancy}
2023   \thispagestyle{empty}
2024   \AddToShipoutPicture*{%
2025     \put(0,0){%
2026       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2027         \clip (0,0) rectangle(\paperwidth,\paperheight);
2028         \path (current page.north west) +(1.8cm,-1.2cm)
2029         node[anchor=north west] {
2030           \includegraphics[height=1.1cm]{\@logo}
2031         };
2032         \if@nofoldline\else
2033         \draw (current page.north west)
2034         +(1cm,-98mm) -- +(1.5cm,-98mm);
2035         \fi
2036         % 90 x 45
2037         % pos: 20mm van kant, 15mm van onderkant
2038         \path (current page.north east) +(-100mm,-65mm)
2039         node[anchor=west,text width=80mm,align=left] {
2040           \scriptsize\textcolor{gray}{\uline{\@returnaddress}}\*\
2041           \normalsize\@to\*\
2042           \ifx\@toorganization\@empty\else\@toorganization\*\fi%
2043           \@toaddress
2044         };
2045       \end{tikzpicture}
2046     }
2047   }
2048   ~\ [3ex]
2049   \textcolor{uauaside}{\textbf{\@sender}}
2050   \ifx\@senderrole\@empty\ [1.75ex]\else \*\@senderrole\ [1.75ex]\fi
2051   \@faculty{}
2052   \ifx\@unit\@empty\else\*\ @unit\fi~\ [1.75ex]
2053   \@address\ [1.75ex]
2054   \ifemails{E~\jointemails{\phantom{E~}}\}
2055   \ifphones{T~\jointphones{\phantom{T~}}\}
2056   \iffaxes{F~\jointfaxes{\phantom{F~}}\}
2057   \ifmobiles{M~\jointmobiles{\phantom{M~}}\}
2058   ~\ [4ex]
2059   \begin{tikzpicture}[anchor=north west,align=left,outer sep=0,inner sep=0]
2060     \path
2061     (0,0) node { \scriptsize \strut
2062       \textcolor{gray}{\uppercase\expandafter{\uantwerpendocsprop{datename}} } }
2063     (4cm,0) node { \scriptsize \strut
2064       \textcolor{gray}{\uppercase\expandafter{\uantwerpendocsprop{subjectname}} } }
2065     (0,-2.5ex) node { \strut \@date }
2066     (4cm,-2.5ex) node[align=left] { \strut \@subject };
2067   \end{tikzpicture}~\ [4ex]
```

```
2068 }
2069 </le>
```

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

```
2070 <*le>
2071 \AtEndDocument{
2072   \@closing\*\[3ex]\@signature~\[\[3ex]
2073   \@sender
2074   \ifx\@senderrole\@empty\[\[8ex]\else\*\@senderrole\[\[8ex]\fi
2075   \setlength{\parskip}{0em}
2076   \ifx\@carboncopy\@empty\else CC: \@carboncopy\[\[4ex]\fi
2077   \ifx\@enclosed\@empty\else ENCL: \@enclosed\fi
2078   \label{lastpage}
2079 }
2080 </le>
```

6.25 Title page for the exam class

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

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

```
2081 <*ex>
2082 \renewcommand\maketitle{%
2083   \pagestyle{fancy}
2084   \AddToShipoutPicture*{%
2085     \put(0,0){%
2086       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2087         \clip (0,0) rectangle(\paperwidth,\paperheight);
2088         \fill[lightgray]
2089           (2.125,{\paperheight-7cm}) rectangle (\paperwidth,6);
2090
2091         \node
2092           [anchor=west,text width={\paperwidth-5cm},align=left]
2093           at (2.125,{\paperheight-3cm})
2094           {%
2095             \fontfamily{phv}\fontsize{18}{22}\fontseries{b}%
2096             \fontshape{n}\selectfont%
2097             \@course{}
2098             \ifx\@exampart\@empty
2099             \else --- \@exampart\fi
2100           };
2101         \node
2102           [anchor=west,text width={\paperwidth-5cm},align=left]
2103           at (2.125,{\paperheight-4cm})
2104           {%
2105             \fontfamily{phv}\fontsize{12}{18}\fontseries{b}%
2106             \fontshape{n}\selectfont%
2107             \@coursecode
2108           };

```

```

2109
2110 \node
2111 [anchor=west,text width={\paperwidth-5cm},align=left,font=\large]
2112 at (2.125,{\paperheight-5cm})
2113 {%
2114 \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2115 \fontshape{n}\selectfont%
2116 \uantwerpendocsprop{seriesname} \@examgroupnumber{} \hfill \@examdate{}
2117 };
2118
2119 \node[anchor=south west,align=left,inner sep=0pt] at (3,21)
2120 {%
2121 \fontfamily{phv}\fontsize{14}{19}\fontseries{b}%
2122 \fontshape{n}\selectfont%
2123 \uantwerpendocsprop{examname}
2124 };
2125
2126 \node[anchor=south west,align=left,inner sep=0pt] at (3,19)
2127 {%
2128 \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2129 \fontshape{n}\selectfont%
2130 \uantwerpendocsprop{lastname}
2131 };
2132 \foreach \nn in {0,1,...,33} {
2133 \draw[fill=white] (3,18) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2134 }
2135
2136 \node[anchor=south west,align=left,inner sep=0pt] at (3,17)
2137 {%
2138 \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2139 \fontshape{n}\selectfont%
2140 \uantwerpendocsprop{firstname}
2141 };
2142
2143 \foreach \nn in {0,1,...,23} {
2144 \draw[fill=white] (3,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2145 }
2146
2147 \node[anchor=south west,align=left,inner sep=0pt] at (16,17)
2148 {%
2149 \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2150 \fontshape{n}\selectfont%
2151 \uantwerpendocsprop{docketname}
2152 };
2153 \foreach \nn in {0,1,...,7} {
2154 \draw[fill=white] (16,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2155 }
2156
2157 \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2158 at (3,14)
2159 {%
2160 \fontfamily{phv}\fontsize{12}{21}\fontseries{m}%
2161 \fontshape{n}\selectfont%
2162 \uantwerpendocsprop{examdurationname}: \@examlength

```

```

2163     };
2164     \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2165     at (3,11)
2166     {%
2167         \fontfamily{phv}\fontsize{12}{15}\fontseries{m}%
2168         \fontshape{n}\selectfont%
2169         \begin{tabular}{@{}l@{}l}%
2170             \untwerpendocsprop{examstartname}& : & \@tstart\\
2171             \untwerpendocsprop{examendname} & : & \@tend
2172         \end{tabular}
2173     };
2174
2175     \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2176     at (3,8)
2177     {%
2178         \fontfamily{phv}\fontsize{12}{21}\fontseries{m}%
2179         \fontshape{n}\selectfont%
2180         \roomsname: \jointrooms{, }
2181     };
2182
2183     \node
2184     [anchor=base west,uauamain,
2185     text width={\paperwidth-5cm},align=left,font=\LARGE]
2186     at (2.125,{\paperheight-6.5cm})
2187     {\textsf{\textbf{\@author}}};
2188
2189     \fill[gray] (2.125,6)
2190     -- (\paperwidth,6)
2191     -- (\paperwidth,2.625)
2192     -- (2.55,2.625)
2193     arc (-90:-180:0.425)
2194     -- cycle;
2195
2196     \node[white,anchor=west,align=left,font=\large]
2197     (SN) at (2.55,4.9)
2198     {
2199         \begin{tabular}{@{}l@{}{-\,}p{14.5cm}}
2200             \textsf{\lecturersname}
2201             & \textsf{\textbf{\jointlecturers{ | }}}
2202         \end{tabular}
2203     };
2204
2205     \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
2206     at (2.55,3.7)
2207     {\textsf{\@degree}}\\
2208     \textsf{\textbf{\@faculty}}};
2209
2210     \node[anchor=west] at (2.125,1.313)
2211     {\includegraphics[width=4.75cm]{\logopos}};
2212 \end{tikzpicture}
2213 }
2214 }
2215 ~\par\relax
2216 \clearpage

```

```

2217 \lfoot[\small \@shorttitle]{\small \@shorttitle}
2218 \rfoot[\small Groep \@examgroupnumber{} ---
2219 \@academicyear]{\small Groep \@examgroupnumber{} --- \@academicyear}
2220 \renewcommand*{\footrulewidth}{1pt}
2221 \@extrainfo{}
2222 }
2223 </ex>

```

6.26 Auxiliary functions to typeset exams

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

```

2224 <*ex>
2225 \newcounter{question}
2226 \setcounter{question}{0}
2227 \renewcommand*\thequestion{\@arabic\c@question}
2228 \newcommand{\question}[1]{
2229   \stepcounter{question}
2230   \thequestion.~#1%
2231 }
2232 </ex>

```

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

```

2233 <*ex>
2234 \newcommand*\questionweight[1]{%
2235   \hspace{\fill}
2236   \begin{tabular}{|c|}
2237     \hline
2238     \small \uantwerpendocsprop{weightname}: #1\\
2239     \hline
2240   \end{tabular}\\
2241 }
2242 </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.

```

2243 <*ex>
2244 \newcommand{\engdut}[2]{%
2245   \begin{tabular}{ccc}%
2246     \selectlanguage{english}%
2247     \begin{minipage}[t]{0.45\textwidth}%
2248       #1
2249     \end{minipage}%
2250     &~~~&
2251     \selectlanguage{dutch}%
2252     \begin{minipage}[t]{0.45\textwidth}%
2253       #2
2254     \end{minipage}%
2255   \end{tabular}
2256   \selectlanguage{english}%

```

```
2257 }
2258 </ex>
```

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

```
2259 <*ex>
2260 \newcommand*\@mcsymbol{\square}
2261 \newcommand*\setmcsymbol[1]{\renewcommand\@mcsymbol{#1}}
2262 </ex>
```

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

```
2263 <*ex>
2264 \newcommand\mc[1]{%
2265   \hfill\break\qquad\begin{tabular}{cc}
2266     $@\@mcsymbol$
2267     &
2268     \begin{minipage}[t]{0.9\textwidth}%
2269       #1
2270     \end{minipage}%
2271   \end{tabular}
2272   }
2273 </ex>
```

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

```
2274 <*ex>
2275 \newcommand{\engdutm}[2]{%
2276   \hfill\break\begin{tabular}{cccc}
2277     $@\@mcsymbol$
2278     &
2279     \selectlanguage{english}%
2280     \begin{minipage}[t]{0.42\textwidth}%
2281       #1
2282     \end{minipage}%
2283     &---&
2284     \selectlanguage{dutch}%
2285     \begin{minipage}[t]{0.42\textwidth}%
2286       #2
2287     \end{minipage}%
2288   \end{tabular}
2289   \selectlanguage{english}%
2290   }
2291 </ex>
```

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


```

2292 <*ex>
2293 \newcommand\insertsolutionspagepartial[1]{
2294   ~\relax
2295   \AddToShipoutPicture*{%
2296     \put(0,0){%
2297       \begin{tikzpicture}
2298         \clip (0,0) rectangle (21,#1);
2299 % \draw[densely dotted, step=0.5cm,black!20] (0.999,0.990) grid (20,1.5);
2300 \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
2301 \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
2302
2303 \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,27);
2304 \draw[densely dotted, step=0.5cm,black!20] (0.999,27) grid (16,28);
2305 \draw[densely dotted, step=0.5cm,black!20] (19.499,27) grid (20,28);
2306 \draw[densely dotted, step=0.5cm,black!20] (0.99,27.999) grid
2307 (20,28.5);
2308 \draw[ultra thick] (1,#1) -- (20,#1);
2309 \end{tikzpicture}
2310 }
2311 }%
2312 \clearpage
2313 \relax
2314 }
2315 </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').

```

2316 <*ex>
2317 \newcommand\insertsolutionspage[1]{
2318   \clearpage
2319   \AddToShipoutPicture*{%
2320     \put(0,0){%
2321       \begin{tikzpicture}
2322         \clip (0,0) rectangle (21,29.5);
2323         \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
2324         \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
2325
2326         \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,28);
2327         \draw[densely dotted, step=0.5cm,black!20] (0.999,28) grid (16,28.5);
2328         \draw[densely dotted, step=0.5cm,black!20] (19.499,28) grid (20,28.5);
2329       \end{tikzpicture}
2330     }
2331     \put(120,150){\rotatebox{60}{\textcolor{watermark}{
2332       \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}\selectfont
2333       #1}
2334     }
2335   }
2336 }%
2337 ~\relax
2338 }
2339 </ex>

```

We add a lastpage label to the final page

```
2340 <*ex>
2341 \AtEndDocument{
2342   \label{lastpage}
2343 }
2344 </ex>
2345 % \end{macrocode
2346 %
2347 % \subsection{References}
2348 %   \begin{macrocode}
2349 <*ct | bmt | pt | rp>
2350 \AtBeginDocument{
2351   \@ifpackageloaded{hyperref}{
2352     \hypersetup{
2353       breaklinks=true,
2354       colorlinks=true,
2355       citecolor=black,
2356       filecolor=black,
2357       linkcolor=black,
2358       pageanchor=true,
2359       pdfpagemode=UseOutlines,
2360       urlcolor=black,
2361       pdftitle={\@title},
2362       pdfsubject={\@subtitle},
2363       pdfauthor={\@author}
2364     }
2365   }{}
2366 }
2367 </ct | bmt | pt | rp>
```

7 The beamer theme

7.1 User guide

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

The packages below are for demonstration purpose only.
They are not required for the template to work

```
\usepackage{metalogo}
\usepackage{kantlipsum}
\usepackage{pgfplots}
\usepackage{booktabs}
```

some stuff to typeset code

```
\newcommand*{\command}[1]{\tt \textbackslash #1}
\NewEnviron{codesnippet}[1][0.8\textwidth]{
  \scriptsize
  \quad\framebox[#1][l]{\texttt{
```

```

        \setlength\textwidth{#1}
        \begin{minipage}{0.9\textwidth}
            \BODY
        \end{minipage}
    }
}
}
\newcommand*\ind[1][2ex]{\hspace*{#1}}
\newcommand*\bframe[1][]{\command{begin}\{#1frame\}}
\newcommand*\eframe[1][]{\command{end}\{#1frame\}}

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

\begin{document}

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

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

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

\begin{frame}
    {What's on the menu?}
    {Bon app\`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\}\
    \end{codesnippet}

```

```

\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)
  \end{description}

```

```

\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{beamercolorthemeuantworterpen.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]
\bfframe[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]
\bfframe[] [negative]
\ind \command{sectionpage}
\eframe\[-\]
\bfframe[] [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]`
`\quad\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) {\command{uantwerpenicon[scale=0.8]}}
\end{frame}
```

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

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

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

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

```
\begin{codesnippet}[0.9\textwidth]
  \bframe[] [graphicfill=\{\command{darken}%
  [0.25]\}\command{includegraphics}%
  [scale=0.1,min width=\command{paperwidth},min height=\command{paperheight}]%
  \{Images/uantwerpen-09.jpg\}\},t]\
```

```

\command{place} [anchor=north east] at (0.95,0.5) {\
\ind\command{uantwerpencallout}{3}\{2.5}\{\
\ind\ind\command{bfseries} You cannot be serious!\textbackslash\textbackslash[1ex]\
\ind\ind John McEnroe}\
}\
\eframe
\end{codesnippet}
\end{frame}

```

```

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

```

```

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

```

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

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

```

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

```

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

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

```

\end{frame}

```

```

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

```

```

\section{Demo of some inner theme parts}

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

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

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

```

```

\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.h.o. 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 2022)

\end{frame}

\end{document}
</bmrug>

```

7.2 Implementation

7.2.1 Main beamer theme

```
2368 <*bmr>
2369 %      Copyright 2023 by Walter Daems <walter.daems@uantwerpen.be>
2370 %
2371 %      This file may be distributed and/or modified
2372 %
2373 %      1. under the LaTeX Project Public License and/or
2374 %      2. under the GNU Public License.
2375 %
2376 %      See the file doc/licenses/LICENSE for more details.
2377
2378 \newif\if@nofonts
2379 \@nofontsfalse
2380 \DeclareOption{nofonts}{\@nofontstrue}
2381
2382 \input{uantwerpencommonoptions.clo}
2383
2384 \ProcessOptions
2385
2386 \RequirePackage{uantwercolorlogoscheme}
2387
2388 \AtBeginDocument{
2389   \def\appropriatelogo{\logopos}
2390   \def\appropriateslidenumber{%
2391     \usebeamercolor{pageno in head/foot}%
2392     \insertframenum/\inserttotalframenum}%
2393 }
2394
2395 \mode<presentation>
2396
2397 \RequirePackage{tikz}
2398 \RequirePackage{graphicx}
2399 \RequirePackage{graphbox}
2400 \RequirePackage[export]{adjustbox}
2401 \RequirePackage{environ}
2402
2403 \setbeamersize{
2404   text margin left=.8cm,
2405   text margin right=.8cm
2406 }
2407
2408 \usecolortheme{uantwerpen}
2409 \usefonttheme{uantwerpen}
2410 \useinnertheme{uantwerpen}
2411 \useoutertheme{uantwerpen}
2412
2413 \setbeamertemplate{navigation symbols}{}
2414 \setbeamertemplate{blocks}[rounded][shadow=true]
2415
2416 \mode
2417 <all>
```

2418 \langle /bmr \rangle

7.2.2 Beamer color theme

```
2419  $\langle$ *bmrcolor $\rangle$ 
2420 %      Copyright 2023 by Walter Daems <walter.daems@uantwerpen.be>
2421 %
2422 %      This file may be distributed and/or modified
2423 %
2424 %      1. under the LaTeX Project Public License and/or
2425 %      2. under the GNU Public License.
2426 %
2427 %      See the file doc/licenses/LICENSE for more details.
2428
2429 \mode<presentation>
2430
2431 \RequirePackage{uantwerpencolorlogoscheme}
2432
2433 %% define main color
2434 \setbeamercolor{palette primary}{fg=maincolor}
2435 \setbeamercolor{palette secondary}{fg=sidecolor}
2436 \setbeamercolor{palette tertiary}{fg=uauaside}
2437 \setbeamercolor{palette quaternary}{fg=uauamain}
2438
2439 \setbeamercolor{normal text}{fg=basecolor}
2440 \setbeamercolor{inverse normal text}{fg=white!95!maincolor}
2441 \setbeamercolor{alerted text}{fg=uauamain}
2442 \setbeamercolor{example text}{}
2443
2444 \setbeamercolor{heading}{fg=basecolor}
2445 \setbeamercolor{subheading}{fg=basecolor}
2446 \setbeamercolor{inverse heading}{fg=white}
2447 \setbeamercolor{inverse subheading}{fg=white!75!maincolor}
2448
2449 \setbeamercolor{block body}{bg=black!4}
2450 \setbeamercolor{block title}{bg=black!8,fg=maincolor}
2451 \setbeamercolor{block body example}{bg=black!4}
2452 \setbeamercolor{block title example}{bg=black!8}
2453 \setbeamercolor{block body alerted}{bg=black!4}
2454 \setbeamercolor{block title alerted}{bg=black!8}
2455
2456 \setbeamercolor{itemize item}{parent=normal text}
2457 \setbeamercolor{enumerate item}{parent=normal text}
2458 \setbeamercolor{itemize subitem}{parent=normal text}
2459 \setbeamercolor{enumerate subitem}{parent=normal text}
2460 \setbeamercolor{itemize subsubitem}{parent=normal text}
2461 \setbeamercolor{enumerate subsubitem}{parent=normal text}
2462
2463 \setbeamercolor{frametitle}{fg=maincolor}
2464 \setbeamercolor{framesubtitle}{fg=sidecolor}
2465 \setbeamercolor{inverse frametitle}{fg=white}
2466 \setbeamercolor{inverse framesubtitle}{fg=white!80!maincolor}
2467
2468 \setbeamercolor{title in title page}{fg=maincolor}
```

```

2469 \setbeamercolor{subtitle in title page}{fg=sidecolor}
2470 \setbeamercolor{author in title page}{fg=maincolor}
2471 \setbeamercolor{date in title page}{fg=sidecolor}
2472 \setbeamercolor{inverse title in title page}{fg=white}
2473 \setbeamercolor{inverse subtitle in title page}{fg=white!75!maincolor}
2474 \setbeamercolor{inverse author in title page}{fg=white}
2475 \setbeamercolor{inverse date in title page}{fg=white!75!maincolor}
2476
2477 \setbeamercolor{pageno in head/foot}{fg=basecolor}
2478 \setbeamercolor{inverse pageno in head/foot}{fg=white}
2479
2480 \setbeamercolor{section in toc}{fg=basecolor}
2481 \setbeamercolor{subsection in toc}{fg=basecolor}
2482 \setbeamercolor{section number projected}{fg=white,bg=basecolor}
2483 \setbeamercolor{subsection number projected}{fg=white,bg=basecolor}
2484
2485 \setbeamercolor{section title}{fg=maincolor}
2486 \setbeamercolor{section name}{fg=maincolor}
2487 \setbeamercolor{inverse section title}{fg=white}
2488 \setbeamercolor{inverse section name}{fg=white}
2489
2490 \setbeamercolor{subsection title}{fg=sidecolor}
2491 \setbeamercolor{subsection name}{fg=sidecolor}
2492 \setbeamercolor{inverse subsection title}{fg=white!75!maincolor}
2493 \setbeamercolor{inverse subsection name}{fg=white!75!maincolor}
2494 \mode
2495 <all>
2496 </bmrcolor>

```

7.2.3 Beamer font theme

```

2497 <*bmrfont>
2498 % Copyright 2023 by Walter Daems
2499 %
2500 % This file may be distributed and/or modified
2501 %
2502 % 1. under the LaTeX Project Public License and/or
2503 % 2. under the GNU Public License.
2504 %
2505 % See the file doc/licenses/LICENSE for more details.
2506
2507 \usetikzlibrary{calc}
2508
2509 \if@nofonts
2510 \else
2511 \RequirePackage{iftex}
2512 % Uncomment the following line if in MiKTeX you get the error
2513 % message that \ifluatex is already defined.
2514 % You first option is to update all your packages both in user as in
2515 % admin mode to fix your setup.
2516 % Your second option is to avoid the warning uncommenting the
2517 % following line:
2518 % \let\ifluatex\relax
2519 \iftutex

```

```

2520 \usepackage{cmbright}
2521 \usefonttheme{serif}
2522 \usepackage{fontspec}
2523 \setmainfont
2524 [UprightFont = *,
2525 BoldFont = *b,
2526 ItalicFont = *i,
2527 BoldItalicFont = *z,
2528 ]
2529 {calibri}
2530 \usepackage{sansmathaccent}
2531 \fi
2532 \fi
2533 \usepackage{bm}
2534
2535 \mode<presentation>
2536
2537 \setbeamerfont{normal text}{} % ignored currently
2538 \setbeamerfont{alerted text}{}
2539 \setbeamerfont{example text}{}
2540
2541 \setbeamerfont{structure}{}
2542 \setbeamerfont{tiny structure}{size=\tiny}
2543
2544 \setbeamerfont{title}{size=\large,parent=structure}
2545 \setbeamerfont{title in head/footer}{}
2546 \setbeamerfont{title in sidebar}{size=\tiny}
2547
2548 \setbeamerfont{pageno in head/footer}{size=\tiny}
2549
2550 \setbeamerfont{subtitle}{size=\small,parent=title}
2551
2552 \setbeamerfont{author}{}
2553 \setbeamerfont{author in head/footer}{}
2554 \setbeamerfont{author in sidebar}{size=\tiny}
2555
2556 \setbeamerfont{date}{}
2557 \setbeamerfont{date in head/footer}{}
2558 \setbeamerfont{date in sidebar}{}
2559
2560 \setbeamerfont{part name}{size=\LARGE}
2561 \setbeamerfont{part title}{size=\LARGE,parent=title}
2562
2563 \setbeamerfont{section name}{size=\Large}
2564 \setbeamerfont{section title}{size=\Large,parent=title}
2565
2566 \setbeamerfont{section in toc}{parent=structure}
2567 \setbeamerfont{section in toc shaded}{parent=section in toc}
2568 \setbeamerfont{section in head/footer}{}
2569 \setbeamerfont{section in sidebar}{size=\tiny}
2570 \setbeamerfont{section number projected}
2571 {size=\small,parent={section in toc,projected text}}
2572
2573 \setbeamerfont{subsection name}{size=\large}

```

```

2574 \setbeamerfont{subsection title}{size=\large,parent=title}
2575
2576 \setbeamerfont{subsection in toc}{}
2577 \setbeamerfont{subsection in toc shaded}{parent=subsection in toc}
2578 \setbeamerfont{subsection in head/foot}{}
2579 \setbeamerfont{subsection in sidebar}{}
2580
2581 \setbeamerfont{subsubsection in toc}{size=\footnotesize}
2582 \setbeamerfont{subsubsection in toc shaded}{parent=subsubsection in toc}
2583 \setbeamerfont{subsubsection in head/foot}{}
2584 \setbeamerfont{subsubsection in sidebar}{}
2585
2586 \setbeamerfont{headline}{parent={tiny structure}}
2587 \setbeamerfont{footline}{parent={tiny structure}}
2588
2589 \setbeamerfont{frametitle}
2590   {parent=structure,size=\renewcommand*{\baselinestretch}{0.85}\LARGE\bfseries}
2591 \setbeamerfont{framesubtitle}{parent=frametitle,size=\normalsize\bfseries}
2592
2593 \setbeamerfont{caption}{size=\small}
2594 \setbeamerfont{caption name}{parent={structure,caption}}
2595
2596 \setbeamerfont{button}{size=\tiny}
2597
2598 \setbeamerfont{block body}{size=\scriptsize}
2599 \setbeamerfont{block body alerted}{parent={block body}}
2600 \setbeamerfont{block body example}{parent={block body}}
2601 \setbeamerfont{block title}{size=\small,series=\bfseries,parent={structure,block body}}
2602 \setbeamerfont{block title alerted}{parent={block title,alerted text}}
2603 \setbeamerfont{block title example}{parent={block title,example text}}
2604
2605 \setbeamerfont{item}{parent=structure}
2606 \setbeamerfont{subitem}{parent=item}
2607 \setbeamerfont{subsubitem}{parent=subitem}
2608
2609 \setbeamerfont{item projected}{size=\tiny,parent={item,projected text}}
2610 \setbeamerfont{subitem projected}{parent=item projected}
2611 \setbeamerfont{subsubitem projected}{parent=subitem projected}
2612
2613 \setbeamerfont{itemize item}{parent=item}
2614 \setbeamerfont{itemize subitem}{parent=subitem}
2615 \setbeamerfont{itemize subsubitem}{parent=subsubitem}
2616
2617 \setbeamerfont{enumerate item}{parent=item}
2618 \setbeamerfont{enumerate subitem}{parent=subitem}
2619 \setbeamerfont{enumerate subsubitem}{parent=subsubitem}
2620
2621 \setbeamerfont{itemize/enumerate body}{}
2622 \setbeamerfont{itemize/enumerate subbody}{size=\small}
2623 \setbeamerfont{itemize/enumerate subsubbody}{size=\footnotesize}
2624
2625 \setbeamerfont{description item}{parent=item}
2626
2627 \setbeamerfont{projected text}{parent={tiny structure}}

```

```

2628
2629 \setbeamerfont{abstract}{size=\small}
2630 \setbeamerfont{abstract title}{parent={abstract,structure},size=\normalsize}
2631
2632 \setbeamerfont{verse}{family=\rmfamily,shape=\itshape}
2633
2634 \setbeamerfont{quotation}{shape=\itshape}
2635 \setbeamerfont{quote}{parent=quotation}
2636
2637 \setbeamerfont{note page}{size=\small}
2638
2639 \mode
2640 <all>
2641 </bmrfont>

```

7.2.4 Beamer inner theme

```

2642 <*bmrinner>
2643 % Copyright 2023 by Walter Daems <walter.daems@uantwerpen.be>
2644 %
2645 % This file may be distributed and/or modified
2646 %
2647 % 1. under the LaTeX Project Public License and/or
2648 % 2. under the GNU Public License.
2649 %
2650 % See the file doc/licenses/LICENSE for more details.
2651
2652 \mode<presentation>
2653
2654 \setlength\parskip{0.5\baselineskip}
2655 \setlength\parindent{0em}
2656
2657 % use square (can also be circle or ball
2658 \setbeamerfont{sections/subsections in toc}[square]
2659 \setbeamerfont{itemize items}[square]
2660
2661 %\setbeamerfont{description item}[align left]
2662
2663 \newif\if@noround
2664 \@noroundfalse
2665
2666 \newcommand*\uantwerpenleftshape[3][ ]{
2667   \newcommand\mycradius{0.05*(\getlength{\paperheight}-1.6)}%
2668   \coordinate (bl) at #2;
2669   \coordinate (tr) at #3;
2670   \if@noround
2671     \path[#1] (bl) rectangle (tr);
2672   \else
2673     \path[#1] (bl|-tr) -- (tr) -- (bl|tr) -- ($(bl)+(\mycradius,0)$)
2674     arc(-90:-180:\mycradius) -- cycle;
2675   \fi
2676 }
2677 \newcommand*\uantwerpenrightshape[3][ ]{
2678   \newcommand\mycradius{0.05*(\getlength{\paperheight}-1.6)}%

```

```

2679 \coordinate (bl) at #2;
2680 \coordinate (tr) at #3;
2681 \if@noround
2682 \path[#1] (bl) rectangle (tr);
2683 \else
2684 \path[#1] (bl|-tr) -- (tr) -- ($(bl|-tr)+(0,{\mycradius})$)
2685 arc(0:-90:{\mycradius}) -- (bl) -- cycle;
2686 \fi
2687 }
2688
2689 \newcommand*\darken[2][0.5]{%
2690 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2691 \node (a) {#2};
2692 \fill[fill=black,opacity=#1] (a.south west) rectangle (a.north east);
2693 \end{tikzpicture}
2694 }
2695
2696 \newcommand\uantwerpenleftshape[4] [] {
2697 \begin{tikzpicture}
2698 \uantwerpenleftshape[fill=black,fill opacity=0.0,text opacity=1,text=white,#1]{(-
#2/2),-#{3/2}}{({#2/2},{#3/2})}
2699 \node[align=left,anchor=center] at (0,0) { \callout\ #4 };
2700 \end{tikzpicture}
2701 }
2702
2703 \newcommand\callout[1][scale=0.70711]{
2704 \begin{tikzpicture}#1
2705 \fill[maincolor] (0.4,0) -- (0.5,0) -- (0.75,-0.15) -- (0.75,0) --
2706 (0.9,0) arc(-90:0:0.1) -- (1,0.65) arc(0:90:0.1) -- (0.1,0.75) arc
2707 (90:180:0.1) -- (0,0.1) arc(-180:-90:0.1) -- cycle;
2708 \foreach \x in {0.35,0.7} {
2709 \begin{scope}[shift={(\x,0.425)},scale=0.25]
2710 \fill[white] (0,0) circle[radius=0.5];
2711 \fill[white] (0.5,0) arc(0:-90:1) --
2712 (-0.5,-0.725) arc(-90:0:0.725) -- cycle;
2713 \end{scope}
2714 }
2715 \end{tikzpicture}
2716 }
2717
2718 \newcommand*\uantwerpenicon[1][scale=1]{
2719 \includegraphics[#1]{\iconfile}
2720 }
2721
2722 \newcommand\heading[1]{\par{\usebeamercolor{\maybeinverse heading}\color{fg}{\small\bfseries
2723 \newcommand\subheading[1]{\par{
2724 \usebeamercolor{\maybeinverse
2725 subheading}\color{fg}{\footnotesize\it\bfseries #1~}}}}
2726
2727 \mode
2728 <all>
2729 </bmrinner>

```


7.2.5 Beamer outer theme

```
2730 <*bmrouter>
2731 % Copyright 2023 by Walter Daems <walter.daems@uantwerpen.be>
2732 %
2733 % This file may be distributed and/or modified
2734 %
2735 % 1. under the LaTeX Project Public License and/or
2736 % 2. under the GNU Public License.
2737 %
2738 % See the file doc/licenses/LICENSE for more details.
2739
2740 \mode<presentation>
2741
2742 \newcommand*{\getlength[1]{\strip@pt#1/28.45274}
2743 \newcommand*\pw{\getlength{\paperwidth}}%
2744 \newcommand*\ph{\getlength{\paperheight}}%
2745
2746 \newif\if@rhtext
2747 \@rhtextfalse
2748 \newif\if@lhtext
2749 \@lhtextfalse
2750 \newif\if@rqttext
2751 \@rqttextfalse
2752 \newif\if@lqttext
2753 \@lqttextfalse
2754 \newif\if@bhtext
2755 \@bhtextfalse
2756 \gdef\maybeinverse{}
2757
2758 \define@key{beamerframe}{noround}[true]{
2759   \expandafter\csname @noround#1\endcsname
2760 }
2761
2762 \define@key{beamerframe}{normal}[true]{
2763   \setbeamertemplate{title page}[main]
2764   \setbeamertemplate{section page}[main]%
2765   \setbeamertemplate{subsection page}[main]%
2766   \setbeamertemplate{background canvas}[normal]
2767   \gdef\maybeinverse{}
2768 }
2769
2770 \mode<handout|trans>
2771
2772 \define@key{beamerframe}{negativefill}[true]{
2773 }
2774
2775 \define@key{beamerframe}{negative}[true]{
2776 }
2777
2778 \mode
2779 <all>
2780
2781 \mode<beamer|second>
```

```

2782
2783 \define@key{beamerframe}{negativefill}[true]{
2784   \gdef\maybeinverse{inverse }%
2785   \usebeamercolor[fg]{\maybeinverse normal text}%
2786   \setbeamertemplate{title page}[negativefill]
2787   \setbeamertemplate{section page}[negative]%
2788   \setbeamertemplate{subsection page}[negative]%
2789   \setbeamertemplate{background canvas}[negativefill]%
2790 }
2791
2792 \define@key{beamerframe}{negative}[true]{
2793   \gdef\maybeinverse{inverse }%
2794   \usebeamercolor[fg]{\maybeinverse normal text}%
2795   \setbeamertemplate{title page}[negative]
2796   \setbeamertemplate{section page}[negative]%
2797   \setbeamertemplate{subsection page}[negative]%
2798   \setbeamertemplate{background canvas}[negative]%
2799 }
2800
2801 \mode
2802 <all>
2803
2804 \define@key{beamerframe}{graphicfill}[{\includegraphics[scale=0.1,min
2805   width=\paperwidth,min height=\paperheight]{Images/uantwerpen-01.jpg}}]{
2806   \gdef\maybeinverse{inverse }%
2807   \usebeamercolor[fg]{\maybeinverse normal text}%
2808   \setbeamertemplate{background canvas}[graphicfill]{#1}
2809 }
2810
2811 \define@key{beamerframe}{graphic}[{\includegraphics[scale=0.1,min
2812   width=\textwidth,min height=\textheight]{Images/uantwerpen-02.jpg}}]{
2813   \gdef\maybeinverse{inverse }%
2814   \usebeamercolor[fg]{\maybeinverse normal text}%
2815   \setbeamertemplate{background canvas}[graphic]{#1}
2816 }
2817
2818 \define@key{beamerframe}{lhgraphic}
2819   [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2820     height=\textheight]{Images/uantwerpen-03.jpg}}]{
2821   \gdef\maybeinverse{}%
2822   \setbeamertemplate{background canvas}[lhgraphic]{#1}
2823   \@rhttexttrue
2824 }
2825
2826 \define@key{beamerframe}{lqgraphic}
2827   [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2828     height=\textheight]{Images/uantwerpen-04.jpg}}]{
2829   \gdef\maybeinverse{}%
2830   \setbeamertemplate{background canvas}[lqgraphic]{#1}
2831   \@rqttexttrue
2832 }
2833
2834 \define@key{beamerframe}{rhgraphic}
2835   [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min

```

```

2836     height=\textheight]{Images/uantwerpen-05.jpg}}{
2837   \gdef\maybeinverse{}%
2838   \setbeamertemplate{background canvas}[rhgraphic]{#1}
2839   \@lhtxttrue
2840 }
2841
2842 \define@key{beamerframe}{rqgraphic}
2843   [{\includegraphics[scale=0.5,min width=0.5\paperwidth,min
2844     height=\textheight]{Images/uantwerpen-05.jpg}}]{
2845   \gdef\maybeinverse{}%
2846   \setbeamertemplate{background canvas}[rqgraphic]{#1}
2847   \@lqtxttrue
2848 }
2849
2850 \define@key{beamerframe}{thgraphic}
2851   [{\includegraphics[scale=0.5,min width=\paperwidth,min
2852     height=0.5\textheight]{Images/uantwerpen-06.jpg}}]{
2853   \gdef\maybeinverse{}%
2854   \setbeamertemplate{background canvas}[thgraphic]{#1}
2855   \@bhtxttrue
2856 }
2857
2858 \define@key{beamerframe}{bhgraphic}
2859   [{\includegraphics[scale=0.5,min width=\paperwidth,min
2860     height=0.5\textheight]{Images/uantwerpen-07.jpg}}]{
2861   \gdef\maybeinverse{}%
2862   \setbeamertemplate{background canvas}[bhgraphic]{#1}
2863 }
2864
2865 \BeforeBeginEnvironment{frame}{%
2866   \gdef\maybeinverse{}%
2867   \setbeamertemplate{title page}[main]%
2868   \setbeamertemplate{section page}[main]%
2869   \setbeamertemplate{subsection page}[main]%
2870   \setbeamertemplate{background canvas}[normal]%
2871   \usebeamercolor[fg]{normal text}%
2872 }
2873
2874 % The following does not work as \end{frame} is never executed by
2875 % beamer!
2876 % \AtEndEnvironment{frame}{\gdef\maybeinverse{}}
2877
2878 \NewEnviron{rhframe}[3] []{%
2879   \begin{frame}[#1]{#2}{#3}
2880     \begin{minipage}[t]{0.525\textwidth}
2881       ~
2882     \end{minipage}
2883     \begin{minipage}[t]{0.465\textwidth}
2884       \BODY
2885     \end{minipage}
2886   \end{frame}
2887 }
2888
2889 \NewEnviron{r3qframe}[3] []{%

```

```

2890 \begin{frame}[#1]{#2}{#3}
2891   \begin{minipage}[t]{0.23\textwidth}
2892   ~
2893   \end{minipage}
2894   \begin{minipage}[t]{0.76\textwidth}
2895   \BODY
2896   \end{minipage}
2897 \end{frame}
2898 }
2899
2900 \NewEnviron{lhframe}[3][]{%
2901   \begin{frame}[#1]{#2}{#3}
2902     \begin{minipage}[t]{0.465\textwidth}
2903     \BODY
2904     \end{minipage}
2905     \begin{minipage}[t]{0.525\textwidth}
2906     ~
2907     \end{minipage}
2908   \end{frame}
2909 }
2910
2911 \NewEnviron{l3qframe}[3][]{%
2912   \begin{frame}[#1]{#2}{#3}
2913     \begin{minipage}[t]{0.77\textwidth}
2914     \BODY
2915     \end{minipage}
2916     \begin{minipage}[t]{0.22\textwidth}
2917     ~
2918     \end{minipage}
2919   \end{frame}
2920 }
2921
2922 \NewEnviron{bhframe}[3][]{%
2923   \begin{frame}[#1]{#2}{#3}
2924   \BODY
2925   \end{frame}
2926 }
2927
2928 \NewEnviron{thframe}[3][]{%
2929   \begin{frame}[#1]{#2}{#3}
2930   \BODY
2931   \end{frame}
2932 }
2933
2934 %%%%%%%%%%%
2935 % Order:
2936 % 1. option is executed
2937 % 2. frametitle is typeset
2938 % 3. canvas is typeset
2939 % 4. frame is typeset
2940 %%%%%%%%%%%
2941
2942 \def\ps@antwerpen@titlepage{%
2943   \setbeamercolor{title in title page}{parent=palette primary}

```

```

2944 \setbeamertemplate{footline}[empty]
2945 \@nameuse{ps@uantwerpen}
2946 }
2947
2948 \defbeamertemplate*{background canvas}{negativefill}[1]
2949 {%
2950 \gdef\appropriateologo{\logomonowhite}%
2951 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2952 \insertframenumber/\inserttotalframenumber}%
2953 \color{maincolor}\vrule width\paperwidth height\paperheight
2954 }
2955
2956 \defbeamertemplate*{background canvas}{negative}[1]
2957 {%
2958 \gdef\appropriateologo{\logopos}%
2959 \gdef\appropriateslidenumber{}%
2960 \begin{tikzpicture}
2961 \clip (0,0) rectangle (\pw,\ph);
2962 \uantwerpenleftshape[fill=maincolor]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
2963 \end{tikzpicture}
2964 }
2965
2966 \defbeamertemplate*{background canvas}{graphicfill}[1]
2967 {%
2968 \gdef\appropriateologo{\logoneg}%
2969 \gdef\appropriateslidenumber{}%
2970 \begin{tikzpicture}
2971 \clip (0,0) rectangle (\pw,\ph);
2972 \node[align=center] at (0.5*\pw,0.5*\ph) {#1};
2973 \end{tikzpicture}%
2974 }
2975
2976 \defbeamertemplate*{background canvas}{graphic}[1]
2977 {%
2978 \gdef\appropriateologo{\logopos}%
2979 \gdef\appropriateslidenumber{}%
2980 \begin{tikzpicture}
2981 \clip (0,0) rectangle (\pw,\ph);
2982 \begin{scope}
2983 \uantwerpenleftshape[clip]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
2984 \node[align=center] at (0.5*\pw,0.5*\ph) {#1};
2985 \end{scope}
2986 \end{tikzpicture}%
2987 }
2988
2989 \defbeamertemplate*{background canvas}{lhgraphic}[1]
2990 {%
2991 \gdef\maybeinverse{}%
2992 \gdef\appropriateologo{\logopos}%
2993 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2994 \insertframenumber/\inserttotalframenumber}%
2995 \pgfmathsetmacro\dx{0.5*\pw-1.2}%
2996 \pgfmathsetmacro\dy{\ph-1.6}%
2997 \begin{tikzpicture}

```

```

2998 \clip (0,0) rectangle (\pw,\ph);
2999 \begin{scope}
3000 \untwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
3001 \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3002 \end{scope}
3003 \end{tikzpicture}
3004 \@tempwattrue
3005 }
3006
3007 \defbeamertemplate*{background canvas}{lqgraphic}[1]
3008 {%
3009 \gdef\maybeinverse{}%
3010 \gdef\appropriateologo{\logopos}%
3011 \gdef\appropriateslidenummer{\usebeamercolor{pageno in head/foot}%
3012 \insertframenumber/\inserttotalframenumber}%
3013 \pgfmathsetmacro\dx{0.25*\pw-1.2}%
3014 \pgfmathsetmacro\dy{\ph-1.6}%
3015 \begin{tikzpicture}
3016 \clip (0,0) rectangle (\pw,\ph);
3017 \begin{scope}
3018 \untwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
3019 \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy)
3020 {#1};
3021 \end{scope}
3022 \end{tikzpicture}
3023 \@tempwattrue
3024 }
3025
3026 \defbeamertemplate*{background canvas}{rhgraphic}[1]
3027 {%
3028 \gdef\maybeinverse{}%
3029 \gdef\appropriateologo{\logopos}%
3030 \gdef\appropriateslidenummer{\usebeamercolor{pageno in head/foot}%
3031 \insertframenumber/\inserttotalframenumber}%
3032 \pgfmathsetmacro\dx{0.5*\pw-1.2}%
3033 \pgfmathsetmacro\dy{\ph-1.6}%
3034 \begin{tikzpicture}
3035 \clip (0,0) rectangle (\pw,\ph);
3036 \begin{scope}[shift={(0.5*\pw,0)}]
3037 \untwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
3038 \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3039 \end{scope}
3040 \end{tikzpicture}
3041 \@tempwattrue
3042 }
3043
3044 \defbeamertemplate*{background canvas}{rqgraphic}[1]
3045 {%
3046 \gdef\maybeinverse{}%
3047 \gdef\appropriateologo{\logopos}%
3048 \gdef\appropriateslidenummer{\usebeamercolor{pageno in head/foot}%
3049 \insertframenumber/\inserttotalframenumber}%
3050 \pgfmathsetmacro\dx{0.25*\pw-1.2}%
3051 \pgfmathsetmacro\dy{\ph-1.6}%

```

```

3052 \begin{tikzpicture}
3053   \clip (0,0) rectangle (\pw,\ph);
3054   \begin{scope}[shift={(0.75*\pw,0)}]
3055     \uantwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
3056     \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3057   \end{scope}
3058 \end{tikzpicture}
3059 \@tempwatruue
3060 }
3061
3062 \defbeamertemplate*{background canvas}{thgraphic}[1]
3063 {%
3064   \gdef\maybeinverse{}%
3065   \gdef\appropriatelogo{\logopos}%
3066   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/footer}%
3067     \insertframenumber/\inserttotalframenumber}%
3068   \pgfmathsetmacro\dx{\pw-1.6}%
3069   \pgfmathsetmacro\dy{0.5*\ph-0.8}%
3070   \begin{tikzpicture}
3071     \clip (0,0) rectangle (\pw,\ph);
3072     \begin{scope}[shift={(0,0.5*\ph)}]
3073       \uantwerpenleftshape[clip] {(0.8,0)}{(0.8+\dx,\dy)}
3074       \node[align=center] at (0.8+0.5*\dx,0.5*\dy) {#1};
3075     \end{scope}
3076   \end{tikzpicture}
3077   \@tempwatruue
3078 }
3079
3080 \defbeamertemplate*{background canvas}{bhgraphic}[1]
3081 {%
3082   \gdef\maybeinverse{}%
3083   \gdef\appropriatelogo{\logopos}%
3084   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/footer}%
3085     \insertframenumber/\inserttotalframenumber}%
3086   \pgfmathsetmacro\dx{\pw-1.6}%
3087   \pgfmathsetmacro\dy{0.5*\ph-0.8}%
3088   \begin{tikzpicture}
3089     \clip (0,0) rectangle (\pw,\ph);
3090     \begin{scope}[shift={(0,0.8)}]
3091       \uantwerpenleftshape[clip] {(0.8,0)}{(0.8+\dx,\dy)}
3092       \node[align=center] at (0.8+0.5*\dx,0.5*\dy) {#1};
3093     \end{scope}
3094   \end{tikzpicture}
3095   \@tempwatruue
3096 }
3097
3098
3099 \defbeamertemplate*{background canvas}{normal}
3100 {%
3101   \gdef\maybeinverse{}%
3102   \gdef\appropriatelogo{\logopos}%
3103   \gdef\appropriateslidenumber{\usebeamercolor{pageno in
3104     head/footer}\insertframenumber/\inserttotalframenumber}%
3105 }

```

```

3106
3107
3108 \defbeamertemplate*{title page}{main}[1] []
3109 {%
3110 \thispagestyle{uantwerpen@titlepage}%
3111 \begin{tikzpicture}
3112 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3113 \node[anchor=center] at (0.5*\textwidth,0.75*\ph)
3114 {\includegraphics[height=.9\logounitheight]{\logopos}};
3115 \node[
3116 text width=0.98\textwidth,
3117 text=basecolor,
3118 align=center] at (0.5*\textwidth,0.5*\ph) {
3119 \begin{beamercolorbox}[wd=\textwidth,center]{title in title page}
3120 \LARGE\bfseries\inserttitle\[\lex]
3121 \usebeamercolor[fg]{\insertsubtitle in title page}
3122 \color[fg]\large\bfseries\insertsubtitle
3123 \end{beamercolorbox}
3124 };
3125 \node[
3126 text width=0.98\textwidth,
3127 color=basecolor,
3128 align=center] at (0.5*\textwidth,0.25*\ph) {
3129 \begin{beamercolorbox}[wd=\textwidth,center]{author in title page}
3130 \large\bfseries\insertauthor
3131 \end{beamercolorbox}
3132 };
3133 \node[
3134 text width=0.98\textwidth,
3135 color=basecolor,
3136 align=center] at (0.5*\textwidth,0.15*\ph) {
3137 \begin{beamercolorbox}[wd=\textwidth,center]{date in title page}
3138 \normalsize\bfseries\insertdate
3139 \end{beamercolorbox}
3140 };
3141 \end{tikzpicture}
3142 }
3143
3144 \defbeamertemplate*{title page}{negative}[1] []
3145 {
3146 \begin{tikzpicture}
3147 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3148 \node[
3149 text width=0.98\textwidth,
3150 align=center] at (0.5*\textwidth,0.5*\ph) {
3151 \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
3152 \LARGE\bfseries\inserttitle\[\lex]
3153 \usebeamercolor[fg]{\maybeinverse subtitle in title page}
3154 \color[fg]\large\bfseries\insertsubtitle
3155 \end{beamercolorbox}
3156 };
3157 \node[
3158 text width=0.98\textwidth,
3159 align=center,] at (0.5*\textwidth,0.25*\ph) {

```



```

3160     \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
3161     \large\bfseries\insertauthor
3162     \end{beamercolorbox}
3163 };
3164 \node[
3165 text width=0.98\textwidth,
3166 color=basecolor,
3167 align=center] at (0.5*\textwidth,0.15*\ph) {
3168     \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
3169     \normalsize\bfseries\insertdate
3170     \end{beamercolorbox}
3171 };
3172 \end{tikzpicture}
3173 }
3174
3175 \defbeamertemplate*{title page}{negativefill}[1] []
3176 {
3177 \thispagestyle{uantwerpen@titlepage}
3178 \begin{tikzpicture}
3179 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3180 \node[anchor=center] at (0.5*\textwidth,0.75*\ph)
3181 {\includegraphics[height=.9\logounitheight]{\logomonowhite}};
3182 \node[
3183 draw,rectangle,
3184 text width=0.98\textwidth,
3185 color=maincolor,
3186 align=center] at (0.5*\textwidth,0.5*\ph) {
3187     \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
3188     \LARGE\bfseries\inserttitle\[\[1ex]
3189     \usebeamercolor[fg]{inverse subtitle in title page}
3190     \color{fg}\large\bfseries\insertsubtitle
3191     \end{beamercolorbox}
3192 };
3193 \node[
3194 text width=0.98\textwidth,
3195 color=maincolor,
3196 align=center] at (0.5*\textwidth,0.25*\ph) {
3197     \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
3198     \large\bfseries\insertauthor
3199     \end{beamercolorbox}
3200 };
3201 \node[
3202 text width=0.98\textwidth,
3203 color=basecolor,
3204 align=center] at (0.5*\textwidth,0.15*\ph) {
3205     \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
3206     \normalsize\bfseries\insertdate
3207     \end{beamercolorbox}
3208 };
3209 \end{tikzpicture}
3210 }
3211
3212 \defbeamertemplate*{section page}{main}[1] []
3213 {%

```

```

3214 \begin{tikzpicture}
3215   \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3216   \node[
3217     text width=0.98\textwidth,
3218     text=basecolor,
3219     align=center] at (0.5*\textwidth,0.55*\ph) {
3220     \begin{beamercolorbox}[wd=\textwidth,center]{section title}
3221       \Large\bfseries\insertsectionnumber.\~\insertsection
3222     \end{beamercolorbox}
3223   };
3224 \end{tikzpicture}
3225 }
3226
3227 \defbeamertemplate*{subsection page}{main}[1] []
3228 {%
3229 \begin{tikzpicture}
3230   \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3231   \node[
3232     text width=0.98\textwidth,
3233     text=basecolor,
3234     align=center] at (0.5*\textwidth,0.55*\ph) {
3235     \begin{beamercolorbox}[wd=\textwidth,center]{section title}
3236       \Large\bfseries\insertsectionnumber.\~\insertsection
3237     \end{beamercolorbox}
3238   };
3239   \node[
3240     text width=0.98\textwidth,
3241     text=basecolor,
3242     align=center] at (0.5*\textwidth,0.45*\ph) {
3243     \begin{beamercolorbox}[wd=\textwidth,center]{subsection title}
3244       \large\bfseries\insertsubsection
3245     \end{beamercolorbox}
3246   };
3247 \end{tikzpicture}
3248 }
3249
3250 \defbeamertemplate*{section page}{negative}[1] []
3251 {
3252 \begin{tikzpicture}
3253   \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3254   \node[
3255     text width=0.98\textwidth,
3256     text=basecolor,
3257     align=center] at (0.5*\textwidth,0.55*\ph) {
3258     \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
3259       \Large\bfseries\insertsectionnumber.\~\insertsection
3260     \end{beamercolorbox}
3261   };
3262 \end{tikzpicture}
3263 }
3264
3265 \defbeamertemplate*{subsection page}{negative}[1] []
3266 {
3267 \begin{tikzpicture}

```

```

3268 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3269 \node[
3270 text width=0.98\textwidth,
3271 text=basecolor,
3272 align=center] at (0.5*\textwidth,0.55*\ph) {
3273 \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
3274 \Large\bfseries\insertsectionnumber.\~\insertsection
3275 \end{beamercolorbox}
3276 };
3277 \node[
3278 text width=0.98\textwidth,
3279 text=basecolor,
3280 align=center] at (0.5*\textwidth,0.45*\ph) {
3281 \begin{beamercolorbox}[wd=\textwidth,center]{inverse subsection title}
3282 \large\bfseries\insertsubsection
3283 \end{beamercolorbox}
3284 };
3285 \end{tikzpicture}
3286 }
3287
3288 \defbeamertemplate*{footline}{empty}
3289 {
3290 }
3291
3292 \defbeamertemplate*{footline}{normal}
3293 {%
3294 \leavevmode%
3295 \hbox{\begin{beamercolorbox}
3296 [wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,left,leftskip=.8cm
3297 plus1fill]{author in head/foot}}%
3298 \includegraphics[height=0.35\logounitheight]{\appropriatelogo}
3299 \hskip0pt plus 1filll ~
3300 \end{beamercolorbox}}%
3301 \begin{beamercolorbox}[wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,
3302 right,rightskip=.8cm plus1fill]{\maybeinverse pageno in head/foot}}%
3303 \usebeamerfont{pageno in head/foot}~\hskip0pt plus 1filll
3304 \appropriateslidenumber
3305 \end{beamercolorbox}}%
3306 \vskip0pt%
3307 }
3308
3309 \defbeamertemplate*{frametitle}{empty}
3310 {
3311 }
3312
3313 \defbeamertemplate*{frametitle}{normal}
3314 {%
3315 \vskip0.75cm%
3316 \if@rhtext%
3317 \@tempdima=0.5\textwidth%
3318 \@tempdimb=0.5\textwidth%
3319 \advance\@tempdima by0.5\beamer@leftmargin%
3320 \advance\@tempdimb by-0.5\beamer@leftmargin%
3321 \else%

```

```

3322 \if@rqtext%
3323 \@tempdima=0.23\textwidth%
3324 \@tempdimb=0.77\textwidth%
3325 \else%
3326 \if@lhtext%
3327 \@tempdima=0em%
3328 \@tempdimb=0.5\textwidth%
3329 \advance\@tempdimb by-0.5\beamer@leftmargin%
3330 \else%
3331 \if@lqttext%
3332 \@tempdima=0em%
3333 \@tempdimb=0.77\textwidth%
3334 \else%
3335 \if@bhtext%
3336 \@tempdima=0em%
3337 \@tempdimb=\textwidth%
3338 \vskip0.5\textheight%
3339 \else%
3340 \@tempdima=0em%
3341 \@tempdimb=\textwidth%
3342 \fi%
3343 \fi%
3344 \fi%
3345 \fi%
3346 \fi%
3347 \hskip\@tempdima%
3348 \begin{beamercolorbox}[wd=\@tempdimb]{\maybeinverse frametitle}%
3349   \usebeamerfont{frametitle}\insertframetitle\@empty%
3350   \ifx\insertframesubtitle\@empty%
3351     {\usebeamerfont{framesubtitle}%
3352       \usebeamercolor[fg]{\maybeinverse framesubtitle}~\strut\par}%
3353   \vskip-1ex%
3354   \else%
3355     {\usebeamerfont{framesubtitle}%
3356       \usebeamercolor[fg]{\maybeinverse framesubtitle}%
3357       \insertframesubtitle\strut\par}%
3358   \fi%
3359   \if@tempswa\else\vskip-.3cm\fi% set inside beamercolorbox... evil here...
3360 \end{beamercolorbox}%
3361 }
3362
3363 \newdimen\xlopleft
3364 \newdimen\ylopleft
3365 \newdimen\xupright
3366 \newdimen\yupright
3367 \newdimen\xcurrent
3368 \newdimen\ycurrent
3369 \newcommand*\extractlopleft[1]{\path (#1);\pgfgetlastxy{\xlopleft}{\ylopleft};}
3370 \newcommand*\extractupright[1]{\path (#1);\pgfgetlastxy{\xupright}{\yupright};}
3371 \newcommand*\extractcurrent[1]{\path (#1);\pgfgetlastxy{\xcurrent}{\ycurrent};}
3372
3373 \DeclareRobustCommand\place{\@ifnextchar[{\@place}{\@place[align=left] }}
3374 \def\@place[#1] at (#2,#3)#4{
3375   \begin{tikzpicture}[overlay,remember picture]

```

```
3376 \extractloleft{$(current page.south west)$}
3377 \extractupright{$(current page.north east)$}
3378 \node[#1] at
3379   ({\xloleft*(1-#2)+\xupright*#2},{\yloleft*(1-#3)+\yupright*#3}) {#4};
3380 \end{tikzpicture}
3381 }
3382
3383 \mode
3384 <all>
3385 </bmrouter>
```

Change History

v1.0	General: Consolidated uacoursetext class and uamasterthesis class 1 Added option qr 40 Added option titlepagenoartwork 40 Added option titlepagetableonly 40	v1.6	General: Added diploma codes for Faculty of Applied Economics . 1 Added diploma code documentation 11 \diploma: Added diploma codes . 59
v1.1	General: Small bugfixes and 'filled' option 1 Added option user documentation 8 Made raggedright conditional on option 'filled', because it can't be undone 69 \diploma: Fixed typo on programme's name (e-umlaut) 59	v1.7	General: Added babel translations of elements of master's thesis title page 1 Added babel tags of elements of master's thesis title page 46 \maketitle: Embedded babel translations of keywords into title page 71, 75
v1.2	General: Added lmodern package and increased headheight to 13.7pt to please Fancyhdr 1 Added lmodern package to please MikTeX 42 Increased headheight to please Fancyhdr 69	v1.8	General: Corrected minor typographic mistakes, added signature and solved problems with shell escape 1 Added missing packages ifmtarg and shellesc 42 Allowed for empty senderrole . 84 \makefinalpage: Inserted blank one but last page 74 \maketitle: Allowed for empty senderrole 83 \signature: Added signature . . . 64
v1.3	General: Minor bugfixes, abandonment of a few packages, font freedom 1 Abandoned use of cmbright - no more font dictatorship for theses and courses 42 Added inclusion of background package 43 \makefinalpage: Changed eso-pic for tikz 74, 76 \maketitle: Changed eso-pic for tikz 75	v1.81	General: Bugfixes for release v1.8 . 1 Apparently shellesc is still missing from quite a number of installations, therefore, conditional loading 42
v1.4	General: Implemented uantwerpenletter class 1 Implemented letter class 40	v1.9	General: Integrated uantwerpenexam class into package 1 Added etoolbox for convenience reasons 42 Implemented uantwerpenexam class 40
v1.5	General: Replaced bottom arcs in footer of letter by official PDF versions 1 \maketitle: Implemented new footer 83	v2.0	General: Implemented uantwerpenphdthesis class into package 1 Implemented uantwerpenphdthesis class . . . 40 Removed package ifmtarg because unreliable 42

Updated diploma code documentation to incorporate PhD degrees	11	for EM	1
<code>\makefinalpage</code> : Implemented final page	80, 82	<code>\diploma</code> : Added code for Master EM without specialization	59
<code>\maketitle</code> : Implemented title page	77		
v2.1		v2.5	
General: Bugfix release after promotion event on research day	1	General: changed publisher to universitas in example	17
Added appropriate <code>\appendix</code> command	70	<code>\depot</code> : Made the specification of a depot number optional	60
Allow for setting the multiple choice mark symbol	88	<code>\insertsolutionspagepartial</code> : Corrected for 'one page too early' in solutionspagepartial	88
Corrected erroneous line breaking	88	<code>\maketitle</code> : Corrected formatting in case of absent ISBN or depot number	77
Corrected spacing in title + exampart	84	<code>\programme</code> : Shortened 'voorbereidingsprogramma' and 'schakelprogramma' tags	58
<code>\engdut</code> : Increased intercolumn spacing for engdut	87	<code>\publisher</code> : changed publisher to universitas in default	53
<code>\extrainfo</code> : Changed default to empty	66	v3.0	
<code>\maketitle</code> : Corrected information page (p4) jury spacing	77	General: Adapted to the new house style of UAAntwerpen and added a beamer template	1
<code>\subtitle</code> : Added subtitle to phd text	52	Added iftex	42
Ensured that subtitle is really optional by adding default space value	52	<code>\facultyacronym</code> : Changed REC in RE, TEW in BE and WET in WE (according to official naming scheme)	51
v2.2		v3.1	
General: Improved visibility of chapter numbers by adding a white outline	1	General: Renamed generic images to be unique for TexLive distribution	1
Added white chapter number outline	70	v3.2	
Corrected spacing	70	General: Small bugfixes (e.g., frame numbering instead of page numbering)	1
v2.3		v4.0	
General: Reworked masterthesis to bamathesis and minor bug fixes	1	General: Last update of house style (phdthesis coursetext and bamathesis), added uantwerpenreport class, improvements based on use feedback and major rework to benefit from expl3, removed all diploma codes to ease maintainability	1
2019/03/27	84	Removed diploma codes, as too many faculties are requesting to maintain them	11
Added boxes to fill out name and docket number	84	Removed option qr again	40
Introduced bachelor level codes to allow for bachelor theses	11	Removed options titlepagetableonly and titlepagenoartwork	40
<code>\diploma</code> : Added diploma level	59		
<code>\extrainfo</code> : The command <code>\extrainfo</code> now allows for an extra (optional) first argument 'firstpage'	66		
v2.4			
General: Added option for diploma without specialization			

Total rewrite of this part based on expl3	46	v4.3	General: Small bugfixes and corrections to optional fields of letter class	1
<code>\diploma</code> : Discontinued: removed all diploma codes	59			
<code>\facultyacronym</code> : This function is now obsolete	51	v4.4	General: Made titlepages insensitive to parindent and parskip settings + small bugfixes	1
v4.1			Added option bare to phd text classes	40
General: Adapted coursetext again to universitas agreement + added bleed version for phd texts + small bugfixes	1		Added some suggestions for a two column summary of a bamathesis	19
Added cameraready option	44		<code>\department</code> : Added department name	51
Added option cameraready	40	v4.2	<code>\subtitel</code> : Added dutch translation option to phdtext class	52
General: Added in-style bamathesis class	1		<code>\titel</code> : Added dutch translation option to phdtext class	51
Added bachelor/master degrees of FTI and FWET	50		v4.5	
Added bachelor/master disclaimers	49		General: Small bugfixes: more robust fonts for overleaf, added some missing degrees	1
Added bachelor/master document types	48		Added bachelor degrees (dutch) in english mode for FTI	50
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