

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 L^AT_EX `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 L^AT_EX `report` class. It is intended for writing generic (e.g. research or educational) reports. The `letter` class is derived from the standard L^AT_EX `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 L^AT_EX `article` class.

^{*}This document corresponds to `uantwerpendocs` 4.4, dated 2022/08/22.

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

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

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

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

Using this package, requires the following packages:

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

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

You will notice that as of version 4.0 `expl3` and `xparse` are part of the game. Indeed, the `uantwependocs` 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, XeL^AT_EX, LuaL^AT_EX, ...) from the major T_EX-distributions (TeX_{live}, 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.

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 `uantwerpencoursetext` class

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

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

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

```

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

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

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

\academicyear{<XXXX-YYYY>}

\begin{document}

  \maketitle

  % put your LaTeX code here

  \finalpage

\end{document}

```

As of version 4.0:

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

5.1.2 uantwerpenbamathesis class

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

```

\documentclass[ti,a4paper]{uantwerpenbamathesis}

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

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

% 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.

| | |
|-------------------------------|---|
| <code>\courseversion</code> | [coursetext] (optional) This macro indicates which version of the course this is. |
| <code>\defensedate</code> | [phdthesis] (mandatory) Only the year should be mentioned. |
| <code>\defenselocation</code> | [phdthesis] (optional) Location of the defense. Defaults to “Antwerpen”. |
| <code>\diploma</code> | [bamathesis] (discontinued) This macro is no longer used. Use <code>\degree{}</code> instead. |
| <code>\lecturer</code> | [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. |
| <code>\phddegree</code> | [phdthesis] (discontinued) This macro is no longer used. Use <code>\degree{}</code> instead. |
| <code>\degree</code> | [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 <code>\bamadegree</code> command instead. |
| <code>\bamadoctype</code> | [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 <code>\bamadegree</code> macro (see below), unless you want to change the document type to ‘project’. |

This data comes from `uantwerpen-docs-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-nl-ma-bk | Master of Science in de industriële wetenschappen: bouwkunde |
| ti-nl-ma-bch | Master of Science in de industriële wetenschappen: biochemie |
| ti-nl-ma-ch | Master of Science in de industriële wetenschappen: chemie |
| ti-nl-ma-em | Master of Science in de industriële wetenschappen: elektromechanica |
| ti-nl-ma-ei | Master of Science in de industriële wetenschappen: elektronica-ICT |
| ti-en-ma-ei | Master of Science in Electronics and ICT Engineering Technology |
| ti-nl-eduma-wtstem | Educatieve master of Science in de wetenschappen en technologie: STEM |
| we-nl-eduma-wtstem | Educatieve master of Science in de wetenschappen en technologie: STEM |
| we-nl-eduma-wtbchbt | Educatieve master of Science in de wetenschappen en technologie: biochemie en biotechnologie |
| we-nl-eduma-wtbio | Educatieve master of Science in de wetenschappen en technologie: biologie |
| we-nl-eduma-wtch | Educatieve master of Science in de wetenschappen en technologie: chemie |
| we-nl-eduma-wtfy | Educatieve master of Science in de wetenschappen en technologie: fysica |
| we-nl-eduma-wtinf | Educatieve master of Science in de wetenschappen en technologie: informatica |
| we-nl-eduma-wtwi | Educatieve master of Science in de wetenschappen en technologie: wiskunde |

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

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

| | |
|------------------------------|---|
| <code>\publishercode</code> | [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. |
| <code>\subtitle</code> | [coursetext / phdthesis / report] (optional) This macro sets the title of the document. You may use this <ul style="list-style-type: none"> • to further clarify the title • to indicate the nature of this document <p>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 <code>subject</code> tag of the hyperref package (if it is loaded), so that the PDF-document meta-information is correct.</p> |
| <code>\supervisor</code> | [bamathesis / phdthesis] (mandatory) Specifies the person(s) that promote(s)/supervise(s) the thesis. Please, use the macro multiple times if needed. |
| <code>\title</code> | [coursetext / bamathesis / phdthesis / report] (mandatory) This macro sets the title of the document. It also sets the <code>pdftitle</code> tag of the hyperref package (if it is loaded), so that the PDF-document meta-information is correct. |
| <code>\titlepageimage</code> | [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. |
| <code>\versionyear</code> | [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

| | |
|--------------------------|---|
| <code>\address</code> | [letter] (mandatory) Address of the sending unit (or faculty). This can be different from the return address. Newlines are allowed and encouraged. |
| <code>\carboncopy</code> | [letter] (optional) List of persons receiving a copy of this letter. Format at will. |
| <code>\closing</code> | [letter] (mandatory) Closing clause of the letter. E.g. 'Best regards,'. |
| <code>\date</code> | [letter] (optional) Date of the letter. If not specified today's date (at the time of running \LaTeX) will be used. |
| <code>\email</code> | [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.

| | |
|-----------------------------|---|
| <code>\enclosed</code> | [letter] (optional) List of enclosed documents. Format at will. |
| <code>\fax</code> | [letter] (optional) Probably facsimile is not used anymore, but anyway: fax number of the sending person. See also <code>\email</code> . You can specify multiple fax addresses by using the command multiple times. |
| <code>\logo</code> | [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. |
| <code>\mobile</code> | [letter] (optional) Mobile phone number of the sending person. See also <code>\email</code> . You can specify multiple mobile phone numbers by using the command multiple times. |
| <code>\opening</code> | [letter] (mandatory) Opening address of the letter. E.g. 'Dear X,'. |
| <code>\phone</code> | [letter] (optional) Phone number of the sending person. See also <code>\email</code> . You can specify multiple phone numbers by using the command multiple times. |
| <code>\returnaddress</code> | [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. |
| <code>\sender</code> | [letter] (mandatory) Description of the person writing the letter. <ul style="list-style-type: none">• first argument: name of the person writing the letter• second argument: title / role of the person |
| | Newlines are not allowed in the arguments. |
| <code>\signature</code> | [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. |
| <code>\subject</code> | [letter] (mandatory) Short descriptive subject that describes the contents of the letter. |

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

5.3.3 Macros for the exam class

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

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

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

5.4 Examples

5.4.1 uantwerpencoursetext

```
<*ct-example>
\documentclass[ti,a4paper,11pt,oneside,openright,cameraready,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[dutch]{babel} % or english if your text is in English
\usepackage{kantlipsum} % this is just for some dummy text, please remove

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

\usepackage{mathptmx}
\iftutex
\usepackage{fontspec}
\setmainfont{Calibri} % comment this line out if you want computer
% modern as main font, or feel free to select
% any other font

\setsansfont{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-nl-ma-ei}

\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
\usepackage{fontspec}
\setmainfont{Calibri}
\setsansfont{Calibri}
\else
\usepackage{cmbright}
\fi

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

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

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

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

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

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

\degree{doctor in de toegepaste ingenieurswetenschappen}
```

```

\defenselocation{Antwerpen}
\defensedate{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,cameraready]{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. Dezerooder}{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
\usepackage{fontspec}
\setmainfont{Calibri}
\setsansfont{Calibri}
\usepackage{sansmathaccent}
\else
\usepackage{cmbright}
\fi

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

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

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

\versionyear{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{Resultaten}

\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{fontspec}
\setmainfont{Calibri}
\else
\usepackage{cmbright}
\fi

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

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

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

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

\begin{document}
  \maketitle

  \opening{Dear prof. Bonette,}

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

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

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

```

```

\kant[1-3]

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

```

Example with configuration file

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

```

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

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

```

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

```

\input{uantwerpenletter.cfg}

```

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

You may also consider using multiple configuration files in case you have multiple roles in the university. Just make sure they are on your L^AT_EX 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
voorzien vak. Op de andere bladen schrijf je je naam
\emph{niet}. Je examenopgave heeft een uniek nummer dat toelaat het
te identificeren.
\item Op het einde van het examen geef je \emph{alle} bladen weer af
aan de aanwezige docent.
\end{enumerate}
Succes!
}
\studentnr{127}
\setmcsymbol{\bigcirc}

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

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

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

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

\insertsolutionspagepartial{2}

\insertsolutionspage{}
\clearpage

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

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

\insertsolutionspagepartial{23}
\foreach \i in {1,2,3} {

```

```

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

```

Two columns

```

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

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

```



```

cards); (3) the formula collection.
\end{itemize}
}
{
\begin{itemize}
\item Mogen op je tafeltje aanwezig zijn:
(1) schrijfgerief, los d.w.z. \emph{niet} in een pennenzak (geen
papier; er zit examenpapier bij de opgaven),
(2) je rekenmachine (zonder alfanumerieke data en zonder
geheugenkaarten),
(3) het formularium.
\end{itemize}
}
\engdut{
\begin{itemize}
\item \emph{May not be used:} all equipment with memory or
communications facilities, like cell phones, smart phones, smart
watches, music players, \ldots
Your bag must be put in the front of the room. Put your coat on the
hallstand or next to your bag.
\end{itemize}
}
{
\begin{itemize}
\item Volledig \emph{verboden te gebruiken}: alle apparatuur met
geheugen- of communicatiefunctie zoals GSM, smartphone,
smartwatch, 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}
Success!
}
\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@cmyk

```

```

8 \@cmykfalse
9 \DeclareOption{cmyk}{\renewcommand*\colormodel{cmyk}\@cmyktrue}
10 \DeclareOption{rgb}{\renewcommand*\colormodel{rgb}\@cmykfalse}
11
12 \newcommand*\facinenglish[1]{\renewcommand\@faculty{#1}}
13 \newcommand*\facindutch[1]{
14   \AtBeginDocument{
15     \makeatother
16     \@ifpackageloaded{babel}{
17       \addto\captionsdutch{\renewcommand*\@faculty{#1}}
18     }{}
19     \makeatletter
20   }
21 }
22 \newcommand*\fselector{ua}
23 \newcommand*\lselector{en}
24 \newlength\logounitheight
25 \setlength\logounitheight{0.8cm}
26
27 \newcommand*\@faculty{-}
28 \DeclareOption{be}{
29   \renewcommand*\fselector{be}
30   \setlength\logounitheight{1cm}
31   \facinenglish{Faculty of Business and Economics}
32   \facindutch{Faculteit Bedrijfswetenschappen en Economie}
33 }
34 \DeclareOption{fbd}{
35   \renewcommand*\fselector{fbd}
36   \setlength\logounitheight{1cm}
37   \facinenglish{Faculty of Pharmaceutical, Biomedical and Veterinary Sciences}
38   \facindutch{Faculteit Farmaceutische, Biomedische en Diergeneeskundige
39     Wetenschappen}
40 }
41 \DeclareOption{ggw}{
42   \renewcommand*\fselector{ggw}
43   \setlength\logounitheight{1cm}
44   \facinenglish{
45     Faculty of Medicine and Health Sciences}
46   \facindutch{Faculteit Geneeskunde en Gezondheidswetenschappen}
47 }
48 \DeclareOption{lw}{
49   \renewcommand*\fselector{lw}
50   \setlength\logounitheight{1cm}
51   \facinenglish{Faculty of Arts}
52   \facindutch{Faculteit Letteren en Wijsbegeerte}
53 }
54 \DeclareOption{ow}{
55   \renewcommand*\fselector{ow}
56   \setlength\logounitheight{1cm}
57   \facinenglish{Faculty of Design Sciences}
58   \facindutch{Faculteit Ontwerpwetenschappen}
59 }
60 \DeclareOption{re}{
61   \renewcommand*\fselector{re}

```

```

62 \setlength\logounitheight{1cm}
63 \facinenglish{Faculty of Law}
64 \facindutch{Faculteit Rechten}
65 }
66 \DeclareOption{sw}{
67 \renewcommand*\fselector{sw}
68 \setlength\logounitheight{1cm}
69 \facinenglish{Faculty of Social Sciences}
70 \facindutch{Faculteit Sociale Wetenschappen}
71 }
72 \DeclareOption{ti}{
73 \renewcommand*\fselector{ti}
74 \setlength\logounitheight{1cm}
75 \facinenglish{Faculty of Applied Engineering}
76 \facindutch{Faculteit Toegepaste Ingenieurswetenschappen}
77 }
78 \DeclareOption{we}{
79 \renewcommand*\fselector{we}
80 \setlength\logounitheight{1cm}
81 \facinenglish{Faculty of Science}
82 \facindutch{Faculteit Wetenschappen}
83 }
84 \DeclareOption{iob}{
85 \renewcommand*\fselector{iob}
86 \setlength\logounitheight{1cm}
87 \facinenglish{Institute of Development Policy}
88 \facindutch{Instituut voor Ontwikkelingsbeleid- en beheer}
89 }
90 \newcommand*\@facultyacronym{\expandafter\uppercase\expandafter{\fselector}}
91
92 \AtBeginDocument{
93 \makeatother
94 \@ifpackageloaded{babel}{
95 \addto\captionsdutch{
96 \renewcommand*\lselector{nl}
97 }{}}
98 }
99 \makeatletter
100
101 \newcommand*\logopos{Logos/logo-uantwerpen-\fselector-\lselector-\colormodel-
pos}
102 \newcommand*\logoposua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
pos}
103 \newcommand*\logoneg{Logos/logo-uantwerpen-\fselector-\lselector-\colormodel-
neg}
104 \newcommand*\logonegua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
neg}
105 \newcommand*\logomonowhite{Logos/logo-uantwerpen-\fselector-\lselector-
\colormodel-mono-white}
106 \newcommand*\logomonowhiteua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
mono-white}
107 \newcommand*\iconfile{Logos/icon-uantwerpen-\fselector-\colormodel}
108 \newcommand*\iconfileua{Logos/icon-uantwerpen-ua-\colormodel}
109 }

```

110 </clo>

6.2 Color scheme

```
111 <*cls>
112 \if@cmyk
113 %% UAntwerpen
114 \definecolor{uauamain}{cmyk}{0.00,0.96,0.82,0.01}
115 \definecolor{uauaside}{cmyk}{1.00,0.71,0.00,0.51}
116 %% Faculteit Bedrijfswetenschappen en Economie
117 \definecolor{uabemain}{cmyk}{0.58,0.00,1.00,0.04}
118 \definecolor{uabeside}{cmyk}{0.29,0.04,0.41,0.00}
119 %% Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
120 \definecolor{uafbdmain}{cmyk}{0.65,0.03,0.00,0.00}
121 \definecolor{uafbdside}{cmyk}{0.33,0.03,0.00,0.00}
122 %% Faculteit Geneeskunde en Gezondheidswetenschappen
123 \definecolor{uaggwmain}{cmyk}{0.61,0.55,0.00,0.00}
124 \definecolor{uaggwside}{cmyk}{0.21,0.27,0.03,0.00}
125 %% Faculteit Letteren en Wijsbegeerte
126 \definecolor{ualwmain}{cmyk}{0.00,0.27,0.85,0.00}
127 \definecolor{ualwside}{cmyk}{0.00,0.16,0.51,0.00}
128 %% Faculteit Ontwerpwetenschappen
129 \definecolor{uaowmain}{cmyk}{0.53,0.25,0.26,0.05}
130 \definecolor{uaowside}{cmyk}{0.25,0.08,0.16,0.00}
131 %% Faculteit Rechten
132 \definecolor{uaremain}{cmyk}{0.10,1.00,0.90,0.05}
133 \definecolor{uareside}{cmyk}{0.04,0.45,0.36,0.00}
134 %% Faculteit Sociale Wetenschappen
135 \definecolor{uaswmain}{cmyk}{0.08,0.00,1.00,0.26}
136 \definecolor{uaswside}{cmyk}{0.20,0.11,0.50,0.00}
137 %% Faculteit Toegepaste Ingenieurswetenschappen
138 \definecolor{uatimain}{cmyk}{0.31,1.00,0.00,0.01}
139 \definecolor{uatiside}{cmyk}{0.11,0.30,0.02,0.00}
140 %% Faculteit Wetenschappen
141 \definecolor{uawemain}{cmyk}{1.00,0.20,0.00,0.25}
142 \definecolor{uaweside}{cmyk}{0.40,0.08,0.00,0.10}
143 %% IOB
144 \definecolor{uaiobmain}{cmyk}{0.05,0.75,1.00,0.00}
145 \definecolor{uaiobside}{cmyk}{0.40,0.08,0.00,0.10}
146 \else
147 %% UAntwerpen
148 \definecolor{uauamain}{RGB}{234,44,56}
149 \definecolor{uauaside}{RGB}{0,46,101}
150 %% Faculteit Bedrijfswetenschappen en Economie
151 \definecolor{uabemain}{RGB}{101,168,18}
152 \definecolor{uabeside}{RGB}{185,213,169}
153 %% Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
154 \definecolor{uafbdmain}{RGB}{68,184,243}
155 \definecolor{uafbdside}{RGB}{181,221,247}
156 %% Faculteit Geneeskunde en Gezondheidswetenschappen
157 \definecolor{uaggwmain}{RGB}{117,117,203}
158 \definecolor{uaggwside}{RGB}{198,182,210}
159 %% Faculteit Letteren en Wijsbegeerte
```

```

160 \definecolor{ualwmain}{RGB}{241,181,61}
161 \definecolor{ualwside}{RGB}{255,218,145}
162 %% Faculteit Ontwerpwetenschappen
163 \definecolor{uaowmain}{RGB}{130,161,173}
164 \definecolor{uaowside}{RGB}{200,217,216}
165 %% Faculteit Rechten
166 \definecolor{uaremain}{RGB}{210,8,36}
167 \definecolor{uareside}{RGB}{237,157,144}
168 %% Faculteit Sociale Wetenschappen
169 \definecolor{uaswmain}{RGB}{173,165,0}
170 \definecolor{uaswside}{RGB}{215,211,148}
171 %% Faculteit Toegepaste Ingenieurswetenschappen
172 \definecolor{uatimain}{RGB}{177,0,151}
173 \definecolor{uatiside}{RGB}{221,184,210}
174 %% Faculteit Wetenschappen
175 \definecolor{uawemain}{RGB}{0,108,169}
176 \definecolor{uaweside}{RGB}{151,192,223}
177 %% IOB
178 \definecolor{uaiobmain}{RGB}{230,98,8}
179 \definecolor{uaiobside}{RGB}{151,192,223}
180 \fi
181 %%
182 \if@neutralcolors
183 \colorlet{maincolor}{uauaside}
184 \colorlet{sidecolor}{uauamain}
185 \colorlet{basecolor}{uauaside}
186 \else
187 \colorlet{maincolor}{ua\fselector main}
188 \colorlet{sidecolor}{ua\fselector side}
189 \colorlet{basecolor}{uauaside}
190 \fi
191 </cls>

```

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{shelllesc.sty}{\RequirePackage{shelllesc}}{}
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{soul}
287 \RequirePackage[export]{adjustbox}
288 \RequirePackage{color}
289 \RequirePackage{tikz}
290 \usetikzlibrary{positioning,calc}
291 \RequirePackage{eso-pic}
292 </ct | bmt | pt | rp | le | ex>
293 <*ct | rp>
294 \if@copyright
295 \RequirePackage[contents={},color=lightgray,scale=3]{background}
296 \fi
297 </ct | rp>
298 <*pt>
299 \usepackage{ean13isbn}
300 </pt>

```

6.5.6 UAntwerpen color and logo scheme

```

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

```

6.5.7 Header/Footer

The de-facto standard for headers and footers:

```

304 <*ct | bmt | pt | rp | le | ex>

```

```

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

```

6.6 Colors

```

307 <*ct | bmt | pt | rp | le | ex>
308 \definecolor{lightgray}{cmyk}{0.00,0.00,0.00,0.05}
309 \definecolor{darkgray}{cmyk}{0.00,0.00,0.00,0.80}
310 \definecolor{watermark}{cmyk}{0.00,0.00,0.00,0.05}
311 </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 `blow` highlights a token sequence using white text on the main color.

```

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

```

6.8 Fancy inset texts and quotes

```

324 <*bmt | pt | ct | rp>
325 \newcommand\insettext[1]{
326 \textcolor{basecolor}{
327 \begin{tabular}{@{\hskip3ex}\textcolor{maincolor}{\vrule width 2.5pt}\hskip3ex\large\bfseries
328 \strut #1
329 \end{tabular}
330 }
331 }
332 \newcommand\insetquote[1]{
333 \insettext{
334 \begin{tikzpicture}[scale=0.65]
335 \fill[green!60!black] (0.4,0) -- (0.5,0) -- (0.75,-0.15) -- (0.75,0) --
336 (0.9,0) arc(-90:0:0.1) -- (1,0.65) arc(0:90:0.1) -- (0.1,0.75) arc
337 (90:180:0.1) -- (0,0.1) arc(-180:-90:0.1) -- cycle;
338 \foreach \x in {0.35,0.7} {
339 \begin{scope}[shift={(\x,0.425)},scale=0.25]
340 \fill[white] (0,0) circle[radius=0.5];
341 \fill[white] (0.5,0) arc(0:-90:1) --
342 (-0.5,-0.725) arc(-90:0:0.725) -- cycle;
343 \end{scope}

```

```

344     }
345     \end{tikzpicture}\}
346     #1
347   }
348 }
349 </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.

```

350 < *pt>
351 \if@cameraready
352 \RequirePackage[cam,center,width=21truecm,height=29.7truecm]{crop}
353 \fi
354 </pt>

```

6.10 Data dictionary and parser

Let's start by defining our dictionary:

```

355 < *ct | bmt | pt | rp | le | ex>
356 \ExplSyntaxOn
357 \prop_new:N \g_@@_data_prop
358 </ct | bmt | pt | rp | le | ex>%

```

The dictionary can be accessed using the following document command:

```

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

```

To this end, we use the following parsing infrastructure:

```

367 < *ct | bmt | pt | rp | le | ex>
368 \NewDocumentCommand{\uantwerpendocspropread}{m}{
369   \@@_datareader:n { #1 }
370 }
371 \cs_generate_variant:Nn \prop_gput:Nnn{ Nxx }
372 \cs_new_nopar:Npn \@@_dataparser:w #1 = #2!! {
373   \tl_set:Nn \l_tmpa_tl {#1}
374   \tl_set:Nn \l_tmpb_tl {#2}
375   \tl_trim_spaces:N \l_tmpa_tl

```

```

376 \tl_trim_spaces:N \l_tmpb_tl
377 \prop_gput:Nxx \g_@@_data_prop { \l_tmpa_tl } { \l_tmpb_tl }
378 }
379 </ct | bmt | pt | rp | le | ex>

```

invoked by the following data file reader:

```

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

```

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

```

393 <*ct | bmt | pt | rp | le | ex>
394 \clist_map_inline:nn {en} {
395 \@@_datareader:n { #1 }
396 }
397 %\prop_show:N \g_@@_data_prop
398 \ExplSyntaxOff
399 </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).

```

400 <*ct | bmt | pt | rp | le | ex>
401 \newcommand*\@logo{\logos}
402 \AtBeginDocument{
403 \makeatother
404 \@ifpackageloaded{babel}{
405 \addto\captionsenglish{%
406 \uantwerpenocspropread{en}
407 }
408 \addto\captionsdutch{%
409 \uantwerpenocspropread{nl}
410 }
411 }
412 {}
413 \uantwerpenocspropread{degree}
414 \uantwerpenocspropread{doctype}
415 \makeatletter

```

416 }
417 </ct | bmt | pt | rp | le | ex>

The English data can be found below:

418 (*endata)
419 org-be = Faculty of Business and Economics
420 org-fbd = Faculty of Pharmaceutical, Biomedical and Veterinary Sciences
421 org-ggw = Medicine and Health Sciences
422 org-lw = Faculty of Arts
423 org-ow = Faculty of Design Sciences
424 org-re = Faculty of Law
425 org-sw = Faculty of Social Sciences
426 org-ti = Faculty of Applied Engineering
427 org-we = Faculty of Science
428 org-iob = Institute of Development Policy
429 org-ua = University of Antwerp
430 arr = All rights reserved
431 of = of
432 domainname = uantwerp.be
433 datename = Date
434 subjectname = Subject
435 acyearname = Academic year
436 baname = Bachelor of Science
437 spname = Switching Programme
438 vpname = Preparatory Programme
439 maname = Master of Science
440 phdname = PhD
441 thesisname = Thesis
442 mthesisname = Master's thesis
443 bthesisname = Bachelor's thesis
444 lecturername = Lecturer
445 lecturersname = Lecturers
446 supervisorname = Supervisor
447 supervisorsname = Supervisors
448 cosupervisorname = Cosupervisor
449 cosupervisorsname = Cosupervisors
450 extsupervisorname = External supervisor
451 extsupervisorsname = External supervisors
452 examname = Exam --- Examen
453 seriesname = Series
454 lastname = Last name --- Naam
455 firstname = First name --- Voornaam
456 docketname = Docket No. --- Rolnr.
457 roomname = Room --- Lokaal
458 roomsname = Rooms --- Lokalen
459 examstartname = Start --- Begin
460 examendname = End --- Einde
461 examdurationname = Exam duration --- Duur van het examen
462 juryname = Jury
463 jurymembersname = Members
464 jurychairmanname = Chairman
465 bmthesisname = Thesis to obtain the degree of
466 pthesisnamei = Thesis submitted in fulfilment of the requirements for the degree of

467 pthesisnameii = at the University of Antwerp
 468 weightname = Weight
 469 </endata>

The Dutch data can be found below:

470 (*nldata)
 471 org-be = Faculteit Bedrijfswetenschappen en Economie
 472 org-fbd = Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
 473 org-ggw = Faculteit Geneeskunde en Gezondheidswetenschappen
 474 org-lw = Faculteit Letteren en Wijsbegeerte
 475 org-ow = Faculteit Ontwerpwetenschappen
 476 org-re = Faculteit Rechten
 477 org-sw = Faculteit Sociale Wetenschappen
 478 org-ti = Faculteit Toegepaste Ingenieurswetenschappen
 479 org-we = Faculteit Wetenschappen
 480 org-iob = Instituut voor Ontwikkelingsbeleid- en beheer
 481 org-ua = Universiteit Antwerpen
 482 arr = Alle rechten voorbehouden
 483 of = van
 484 domainname = uantwerpen.be
 485 datename = Onderwerp
 486 subjectname = Datum
 487 acyearname = Academiejaar
 488 baname = Bachelor of Science
 489 spname = Schakelprogramma
 490 vpname = Voorbereidingsprogramma
 491 maname = Master of Science
 492 phdname = Doctoraat
 493 thesisname = Afstudeerproef
 494 mthesisname = Masterproef
 495 bthesisname = Bachelorproef
 496 lecturername = Titularis
 497 lecturersname = Titularissen
 498 supervisorname = Promotor
 499 supervisorsname = Promotoren
 500 cosupervisorname = Copromotor
 501 cosupervisorsname = Copromotoren
 502 extsupervisorname = Externe Promotor
 503 extsupervisorsname = Externe Promotoren
 504 examname = Examen
 505 seriesname = Reeks
 506 lastname = Naam
 507 firstname = Voornaam
 508 docketname = Rolnr.
 509 roomname = Lokaal
 510 roomsname = Lokalen
 511 examstartname = Begin
 512 examendname = Einde
 513 examdurationname = Duur van het examen
 514 juryname = Jury
 515 jurymembersname = Leden
 516 jurychairmanname = Voorzitter
 517 bmthesisname = Proefschrift tot het behalen van de graad van

```

518 pthesisnamei      = Proefschrift voorgelegd tot het behalen van de graad van
519 pthesisnameii     = aan de Universiteit Antwerpen te verdedigen door
520 weightname        = Gewicht
521 </nldata>

```

6.12 Bachelor and Master document types

```

522 <*doctypedata>
523 nl-ba = Bachelorproef
524 nl-ma = Masterproef
525 nl-pr = Projectverslag
526 en-ba = Bachelor's thesis
527 en-ma = Master's thesis
528 en-pr = Project report
529 </doctypedata>

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

```

6.13 Bachelor and Master disclaimers

```

538 <*bmt>
539 \newcommand\disclaimer[1]{
540   Disclaimer #1\newline\newline
541   This document is an examination document that has not been
542   corrected for any errors identified. Without prior written
543   permission of both the supervisor(s) and the author(s), any copying,
544   copying, using or realizing this publication or parts thereof
545   is prohibited. For requests for information regarding the copying
546   and/or use and/or realisation of parts of this publication, please
547   contact to the university at which the author is registered.
548   \newline\newline
549   Prior written permission from the supervisor(s) is also
550   required for the use for industrial or commercial utility of the
551   (original) methods, products, circuits and programs described in this
552   thesis, and for the submission of this publication for participation
553   in scientific prizes or competitions.
554   \newline\newline
555   This document is in accordance with the master thesis regulations and the
556   Code of Conduct. It has been reviewed by the supervisor and the attendant.
557 }
558 \AtBeginDocument{
559   \makeatother
560   \@ifpackageloaded{babel}{
561     \addto\captionsdutch{%
562       \renewcommand\disclaimer[1]{
563         Disclaimer #1\newline\newline

```


564 Dit document is een examendocument dat niet werd gecorrigeerd voor
565 eventueel vastgestelde fouten. Zonder voorafgaande schriftelijke
566 toestemming van zowel de promotor(en) als de auteur(s) is overnemen,
567 kopiëren, gebruiken of realiseren van deze uitgave of gedeelten ervan
568 verboden. Voor aanvragen tot of informatie i.v.m. het overnemen en/of
569 gebruik en/of realisatie van gedeelten uit deze publicatie, wendt u
570 tot de universiteit waaraan de auteur is ingeschreven.
571 \newline\nnewline
572 Voorafgaande schriftelijke toestemming van de promotor(en) is eveneens
573 vereist voor het aanwenden van de in dit afstudeerwerk beschreven
574 (originele) methoden, producten, schakelingen en programma's voor
575 industrieel of commercieel nut en voor de inzending van deze
576 publicatie ter deelname aan wetenschappelijke prijzen of wedstrijden.
577 \newline\nnewline
578 Dit document is in overeenstemming met het masterproefreglement en de
579 gedragscode en nagekeken door promotor en begeleider.
580 }
581 }
582 }{}
583 \makeatletter
584 }
585 </bmt>

6.14 Educational degrees

586 (*degreedata)
587 ti-nl-ba-bk = Bachelor of Science in de industriële wetenschappen: bouwkunde
588 ti-nl-ba-ch = Bachelor of Science in de industriële wetenschappen: chemie
589 ti-nl-ba-em = Bachelor of Science in de industriële wetenschappen: elektromechanica
590 ti-nl-ba-ei = Bachelor of Science in de industriële wetenschappen: elektronica-
ICT
591 ti-nl-ma-bk = Master of Science in de industriële wetenschappen: bouwkunde
592 ti-nl-ma-bch = Master of Science in de industriële wetenschappen: biochemie
593 ti-nl-ma-ch = Master of Science in de industriële wetenschappen: chemie
594 ti-nl-ma-em = Master of Science in de industriële wetenschappen: elektromechanica
595 ti-nl-ma-ei = Master of Science in de industriële wetenschappen: elektronica-
ICT
596 ti-en-ma-ei = Master of Science in Electronics and ICT Engineering Technology
597 ti-nl-eduma-wtstem = Educatieve master of Science in de wetenschappen en technologie: STEM
598 we-nl-eduma-wtstem = Educatieve master of Science in de wetenschappen en technologie: STEM
599 we-nl-eduma-wtbchbt = Educatieve master of Science in de wetenschappen en technologie: biochemie
600 we-nl-eduma-wtbio = Educatieve master of Science in de wetenschappen en technologie: biologie
601 we-nl-eduma-wtch = Educatieve master of Science in de wetenschappen en technologie: chemie
602 we-nl-eduma-wtfy = Educatieve master of Science in de wetenschappen en technologie: fysica
603 we-nl-eduma-wtinf = Educatieve master of Science in de wetenschappen en technologie: informatika
604 we-nl-eduma-wtwi = Educatieve master of Science in de wetenschappen en technologie: wiskunde
605 we-nl-ba-bircg = Bachelor of Science in de bio-ingenieurswetenschappen: cel- en genbiotechnologie
606 we-nl-ba-birvt = Bachelor of Science in de bio-ingenieurswetenschappen: chemie en voedingstechnologie
607 we-nl-ba-birlb = Bachelor of Science in de bio-ingenieurswetenschappen: land- en bosbeheer
608 we-nl-ba-birmt = Bachelor of Science in de bio-ingenieurswetenschappen: milieutechnologie
609 we-nl-ba-bio = Bachelor of Science in de biologie
610 we-nl-ma-bioeg = Master of Science in de biologie: evolutie en gedragsbiologie
611 we-en-ma-biocr = Master of Science in biology: biodiversity, conservation and restoration
612 we-en-ma-biogcb = Master of Science in biology: global change biology

```

613 we-en-ma-biomb = Master of Science in molecular biology
614 we-nl-ba-ch = Bachelor of Science in de chemie
615 we-en-ma-ch = Master of Science in chemistry
616 we-nl-ba-inf = Bachelor of Science in de informatica
617 we-en-ma-infcn = Master of Science in computer science: computer networks
618 we-en-ma-infdsai = Master of Science in computer science: data science and artificial intelligi
619 we-en-ma-infse = Master of Science in computer science: software engineering
620 we-nl-ma-infcn = Master of Science in de informatica: computernetwerken
621 we-nl-ma-infdsai = Master of Science in de informatica: data science en artificiële intelliger
622 we-nl-ma-infse = Master of Science in de informatica: software engineering
623 we-nl-ba-fy = Bachelor of Science in de fysica
624 we-nl-ma-fy = Master of Science in de fysica
625 we-en-ma-fy = Master of Science in physics
626 we-nl-ba-wi = Master of Science in wiskunde
627 we-nl-ma-wifw = Master of Science in wiskunde: fundamentele wiskunde
628 we-nl-ma-wifw = Master of Science in wiskunde: financiële en toegepaste wiskunde
629 </degreedata>

630 <*bmt | ct | pt | ex>
631 \ExplSyntaxOn
632 \NewDocumentCommand{\uantwerpendocsdegree}{m}{
633   \prop_item:Nx \g_@@_data_prop { #1 }
634 }
635 \ExplSyntaxOff
636 </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.

```

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

```

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

```

646 <*ct | bmt | pt>
647 \newcommand*\@department{}
648 \newcommand*\department}[1]{
649   \renewcommand*\@department{#1}
650 }
651 </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.

`\tittel` This macro sets the `\@tittel` 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!

```
652 <*pt>
653 \newcommand*\@tittel{}
654 \newcommand*\tittel[1]{%
655   \renewcommand*\@tittel{#1}
656 }
657 </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).

```
658 <*ct | pt | rp>
659 \newcommand*\@subtitle{}
660 \newcommand*\subtitle[1]{%
661   \renewcommand*\@subtitle{#1}
662 }
663 </ct | pt | rp>
```

`\subtittel` This macro sets the `\@subtittel` 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 `\tittel` command. Only use this tag in an English thesis!

```
664 <*pt>
665 \newcommand*\@subtittel{}
666 \newcommand*\subtittel[1]{%
667   \renewcommand*\@subtittel{#1}
668 }
669 </pt>
```

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

```
670 <*ex>
671 \newcommand*\@shorttitle{}
672 \newcommand*\shorttitle[1]{%
673   \renewcommand*\@shorttitle{#1}
674 }
675 </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.

```
676 <*ct>
677 \newcommand*\@courseversion{}
678 \newcommand*\courseversion[1]{\renewcommand*\@courseversion{#1}}
679 </ct>
```

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

```
680 (*ct | rp)
681 \newcommand*\@versionyear{}
682 \newcommand*\versionyear[1]{\renewcommand*\@versionyear{#1}}
683 </ct | rp>
```

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

```
684 (*ct)
685 \newcommand\@publisher{Universitas Cursusdienst |
686 Prinsesstraat 16 |
687 2000 Antwerpen |
688 T +32 3 233 23 73 |
689 E info@cursusdienst.be}
690 \newcommand*\publisher[1]{\renewcommand*\@publisher{#1}}
691 </ct>
```

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

```
692 (*ct)
693 \newcommand*\@publishercode{}
694 \newcommand*\publishercode[1]{\renewcommand*\@publishercode{#1}}
695 </ct>
```

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

```
696 (*bmt)
697 \newcommand*\@companylogo{}
698 \newcommand*\companylogo[1]{\renewcommand*\@companylogo{#1}}
699 </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!

```
700 (*ct | ex)
701 \ExplSyntaxOn
702 \seq_new:N \g_@@_lecturers
703 \cs_new:Nn \@@_addlecturer:n {
704   \seq_gpush:Nn \g_@@_lecturers { #1 }
705 }
706 \NewDocumentCommand{\lecturer}{m}{
707   \@@_addlecturer:n { #1 }
708 }
709 \NewDocumentCommand{\jointlecturers}{m}{
710   \seq_use:Nn \g_@@_lecturers { #1 }
711 }
712 \NewDocumentCommand{\lecturersname}{}{
713   \if_int_compare:w \seq_count:N \g_@@_lecturers > 1
714     \uantwerpdocsprop{lecturersname}
715   \else:
```

```

716 \if_int_compare:w \seq_count:N \g_@@_lecturers > 0
717 \antwerpendocsprop{lecturername}
718 \fi
719 \fi:
720 }
721 \AtBeginDocument{
722 \seq_greverse:N \g_@@_lecturers
723 }
724
725 \ExplSyntaxOff
726 </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).

```

727 <*rp>
728 \newcommand\@extra{}
729 \newcommand\extra[1]{\renewcommand\@extra{#1}}
730 </rp>

```

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

```

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

```

741 <*bmt|pt>
742 \ExplSyntaxOn
743 \seq_new:N \g_@@_supervisors
744 \seq_new:N \g_@@_supervisorswithaffiliation
745 \cs_new:Nn \@@_addsupervisor:nn {
746 \seq_gpush:Nn \g_@@_supervisors { #1 }
747 \seq_gpush:Nn \g_@@_supervisorswithaffiliation { #1,~#2 }
748 }
749 \NewDocumentCommand{\supervisor}{mm}{
750 \@@_addsupervisor:nn { #1 } { #2 }
751 }
752 \NewDocumentCommand{\jointssupervisors}{mm}{
753 \seq_use:Nnnn \g_@@_supervisors { #2 } { #1 } { #2 }
754 }
755 \NewDocumentCommand{\jointssupervisorswithaffiliation}{mm}{
756 \seq_use:Nnnn \g_@@_supervisorswithaffiliation { #2 } { #1 } { #2 }

```

```

757 }
758 \NewDocumentCommand{\supervisorsname}{m}{
759   \if_int_compare:w \seq_count:N \g_@@_supervisors > 2
760   \uantwerpendocsprop{supervisorsname} #1
761   \else:
762   \if_int_compare:w \seq_count:N \g_@@_supervisors = 2
763   \uantwerpendocsprop{supervisorname} #1
764   \else:
765   \fi:
766   \fi:
767 }
768 </bmt | pt>
769 <*bmt>
770 \seq_new:N \g_@@_cosupervisors
771 \seq_new:N \g_@@_cosupervisorswithaffiliation
772 \cs_new:Nn \@@_addcosupervisor:nn {
773   \seq_gpush:Nn \g_@@_cosupervisors { #1 }
774   \seq_gpush:Nn \g_@@_cosupervisorswithaffiliation { #1,~#2 }
775 }
776 \NewDocumentCommand{\cosupervisor}{mm}{
777   \@@_addcosupervisor:nn { #1 } { #2 }
778 }
779 \NewDocumentCommand{\jointcosupervisors}{mm}{
780   \seq_use:Nnnn \g_@@_cosupervisors { #2 } { #1 } { #2 }
781 }
782 \NewDocumentCommand{\jointcosupervisorswithaffiliation}{mm}{
783   \seq_use:Nnnn \g_@@_cosupervisorswithaffiliation { #2 } { #1 } { #2 }
784 }
785 \NewDocumentCommand{\cosupervisorsname}{m}{
786   \if_int_compare:w \seq_count:N \g_@@_cosupervisors > 2
787   \uantwerpendocsprop{cosupervisorsname} #1
788   \else:
789   \if_int_compare:w \seq_count:N \g_@@_cosupervisors = 2
790   \uantwerpendocsprop{cosupervisorname} #1
791   \else:
792   \fi:
793   \fi:
794 }
795 \seq_new:N \g_@@_extsupervisors
796 \seq_new:N \g_@@_extsupervisorswithaffiliation
797 \cs_new:Nn \@@_addextsupervisor:nn {
798   \seq_gpush:Nn \g_@@_extsupervisors { #1 }
799   \seq_gpush:Nn \g_@@_extsupervisorswithaffiliation { #1,~#2 }
800 }
801 \NewDocumentCommand{\extsupervisor}{mm}{
802   \@@_addextsupervisor:nn { #1 } { #2 }
803 }
804 \NewDocumentCommand{\jointextsupervisors}{mm}{
805   \seq_use:Nnnn \g_@@_extsupervisors { #2 } { #1 } { #2 }
806 }
807 \NewDocumentCommand{\jointextsupervisorswithaffiliation}{mm}{
808   \seq_use:Nnnn \g_@@_extsupervisorswithaffiliation { #2 } { #1 } { #2 }
809 }
810 \NewDocumentCommand{\extsupervisorsname}{m}{

```

```

811 \if_int_compare:w \seq_count:N \g_@@_extsupervisors > 2
812 \uantwerpendocsprop{extsupervisorsname} #1
813 \else:
814 \if_int_compare:w \seq_count:N \g_@@_extsupervisors = 2
815 \uantwerpendocsprop{extsupervisorname} #1
816 \else:
817 \fi:
818 \fi:
819 }
820 </bmt>
821 <*pt>
822 \AtBeginDocument{
823 \seq_gpush:Nn \g_@@_supervisors {}
824 \seq_greverse:N \g_@@_supervisors
825 \seq_gpush:Nn \g_@@_supervisorswithaffiliation {}
826 \seq_greverse:N \g_@@_supervisorswithaffiliation
827 }
828 </pt>
829 <*bmt>
830 \AtBeginDocument{
831 \seq_gpush:Nn \g_@@_supervisors {}
832 \seq_greverse:N \g_@@_supervisors
833 \seq_gpush:Nn \g_@@_supervisorswithaffiliation {}
834 \seq_greverse:N \g_@@_supervisorswithaffiliation
835 \seq_gpush:Nn \g_@@_cosupervisors {}
836 \seq_greverse:N \g_@@_cosupervisors
837 \seq_gpush:Nn \g_@@_cosupervisorswithaffiliation {}
838 \seq_greverse:N \g_@@_cosupervisorswithaffiliation
839 \seq_gpush:Nn \g_@@_extsupervisors {}
840 \seq_greverse:N \g_@@_extsupervisors
841 \seq_gpush:Nn \g_@@_extsupervisorswithaffiliation {}
842 \seq_greverse:N \g_@@_extsupervisorswithaffiliation
843 }
844 </bmt>
845 <*bmt | pt>
846 \ExplSyntaxOff
847 </bmt | pt>

```

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

```

848 <*pt>
849 \newcommand*{\@jurychairman}{
850 \PackageError{uantwerpendocs}
851 {Please, define a chairman of the jury using the
852 '\protect\jurychairman{ }' command in the preamble of your
853 document.}
854 {See the uantwerpendocs manual}
855 }
856 \newcommand*{\@jurychairmanaff}{}
857 \newcommand*{\jurychairman}[2]{
858 \renewcommand*{\@jurychairman}{#1}\renewcommand*{\@jurychairmanaff}{#2}}
859 </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 jury members are specified using the same macro!

```

860 (*pt)
861 \ExplSyntaxOn
862 \seq_new:N \g_@@_jury members with affiliation
863 \cs_new:Nn \@@_add_jury member:nn {
864   \seq_gpush:Nn \g_@@_jury members with affiliation { #1,~#2 }
865 }
866 \NewDocumentCommand{\jury member}{mm}{
867   \@@_add_jury member:nn { #1 } { #2 }
868 }
869 \NewDocumentCommand{\joint jury members}{m}{
870   \seq_use:Nn \g_@@_jury members with affiliation { #1 }
871 }
872 \AtBeginDocument{
873   \seq_greverse:N \g_@@_jury members with affiliation
874 }
875 \ExplSyntaxOff
876 </pt>

```

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

```

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

```

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

```

903 (*bmt | pt | ct | ex)

```



```

904 \newcommand*\@bamadoctype{
905   \PackageError{uantwerpen}{
906     {Please, specify the official document type, either using
907       the '\protect\bamadoctype{ }' macro or the '\protect\bamadegree{ }'
908       macro in the preamble of your document.}
909     {See the uantwerpen manual}}
910 \newcommand*\bamadoctype[1]{
911   \renewcommand*\@bamadoctype{\uantwerpen{#1}}
912 }
913 </bmt | pt | ct | ex>

```

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

```

914 < *bmt | pt | ct | ex >
915 \ExplSyntaxOn
916 \NewDocumentCommand{\bamadegree}{m}{
917   \seq_new:N \l_@_degreechunks
918   \regex_extract_all:nnN { [^-]+ } { #1 } \l_@_degreechunks
919   \bamadoctype{\seq_item:Nn\l_@_degreechunks {2} - \seq_item:Nn\l_@_degreechunks {3}}
920   \degree{\uantwerpen{degree{
921     \seq_item:Nn\l_@_degreechunks {1} -
922     \seq_item:Nn\l_@_degreechunks {2} -
923     \seq_item:Nn\l_@_degreechunks {3} -
924     \seq_item:Nn\l_@_degreechunks {4} }}
925 }
926 \ExplSyntaxOff
927 </bmt | pt | ct | ex >

```

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

```

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

```

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

```

938 < *ct >
939 \newcommand*\coursei[2]{
940   \PackageError{uantwerpen}{
941     {The '\protect\coursei{ }' macro is no longer available. Use
942       '\protect\course{ }' instead (multiple times if you need to)}
943     {The interface of uantwerpen 4.0 has been changed. Use the
944       '\protect\course macro instead of the \protect\coursei,

```

```

945   \protect\courseii, \protect\courseiii and \protect\courseiv macros
946   that existed earlier (see
947   the uantwerpendocs manual)'}
948 }
949 \ExplSyntaxOn
950 \seq_new:N \g_@@_courseswithcodes
951 \cs_new:Nn \@@_addcourse:nn {
952   \seq_gpush:Nn \g_@@_courseswithcodes{ \texttt{#1}~#2 }
953 }
954 \NewDocumentCommand{\course}{mm}{
955   \@@_addcourse:nn { #1 } { #2 }
956 }
957 \NewDocumentCommand{\jointcourseswithcodes}{m}{
958   \seq_use:Nn \g_@@_courseswithcodes { #1 }
959 }
960 \AtBeginDocument{
961   \seq_greverse:N \g_@@_courseswithcodes
962 }
963 \ExplSyntaxOff
964 </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.

```

965 <*ex>
966 \newcommand*{\@coursecode}{}
967 \newcommand*{\@course}{}
968 \newcommand*{\course}[2]{
969   \renewcommand*{\@coursecode}{#1}
970   \renewcommand*{\@course}{#2}
971 }
972 </ex>

```

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

```

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

```

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

```

983 <*pt>
984 \newcommand*\@defensedate{ERROR}
985 \newcommand*{\defensedate}[1]{\renewcommand*\@defensedate{#1}}
986 </pt>

```

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

```
987 <*pt>
988 \newcommand*\@defenselocation{Antwerpen}
989 \newcommand*\defenselocation[1]{\renewcommand*\@defenselocation{#1}}
990 </pt>
```

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

```
991 <*ct | pt | rp>
992 \newcommand*\@titlepageimage{}
993 \newcommand\titepageimage[1]{\renewcommand*\@titlepageimage{#1}}
994 </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).

```
995 <*pt>
996 \newcommand*\@isbn{}
997 \newcommand*\isbn[1]{\renewcommand*\@isbn{#1}}
998 </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).

```
999 <*pt>
1000 \newcommand*\@depot{}
1001 \newcommand*\depot[1]{\renewcommand*\@depot{#1}}
1002 </pt>
```

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

```
1003 <*ct | bmt | ex>
1004 \newcommand*\@academicyear{XXX-YYYY}
1005 \newcommand*\academicyear[1]{\renewcommand*\@academicyear{#1}}
1006 </ct | bmt | ex>
```

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

```
1007 <*ct | rp>
1008 \newcommand{\@copyrightnotices}{}
1009 \newcommand{\copyrightnotices}[1]{\renewcommand{\@copyrightnotices}{#1}}
1010 </ct | rp>
1011 <*bmt>
1012 \newcommand{\@copyrightnotices}{\disclaimer{\@bamadoctype}}
1013 </bmt>
```

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

```

1014 (*|e)
1015 \newcommand*{\@sender}{< Specify sender using
1016 \textbackslash{}sender\{name\}\{role\} >}
1017 \newcommand*{\@senderrole}{~}
1018 \newcommand*{\sender}[2]{\renewcommand*{\@sender}{#1}\renewcommand*{\@senderrole}{#2}}
1019 (/|e)

```

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

```

1020 (*|e | ex)
1021 \newcommand*{\logo}[1]{\renewcommand*{\@logo}{#1}}
1022 (/|e | ex)

```

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

```

1023 (*|e)
1024 \newcommand*{\@unit}{}
1025 \newcommand*{\unit}[1]{\renewcommand*{\@unit}{#1}}
1026 (/|e)

```

`\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)

```

1027 (*|e)
1028 \ExplSyntaxOn
1029 \seq_new:N \g_@@_emailaddresses
1030 \cs_new:Nn \@@_addemailaddress:nn {
1031 \seq_gpush:Nn \g_@@_emailaddresses {#1\tat{#2}}
1032 }
1033 \NewDocumentCommand{\email}{mm}{
1034 \@@_addemailaddress:nn { #1 } { #2 }
1035 }
1036 \NewDocumentCommand{\jointemails}{m}{
1037 \seq_use:Nn \g_@@_emailaddresses { #1 }
1038 }
1039 \NewDocumentCommand{\ifemails}{m}{
1040 \seq_if_empty:NTF \g_@@_emailaddresses {} {#1}
1041 }
1042 \AtBeginDocument{
1043 \seq_greverse:N \g_@@_emailaddresses
1044 }
1045 \ExplSyntaxOff
1046 (/|e)

```

`\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)

```

1047 (*|e)
1048 \ExplSyntaxOn
1049 \seq_new:N \g_@@_phonenumber
1050 \cs_new:Nn \@@_addphonenumber:n {
1051 \seq_gpush:Nn \g_@@_phonenumber {#1}

```

```

1052 }
1053 \NewDocumentCommand{\phone}{m}{
1054   \@@_addphonenumber:n { #1 }
1055 }
1056 \NewDocumentCommand{\jointphones}{m}{
1057   \seq_use:Nn \g_@@_phonenumbers { #1 }
1058 }
1059 \NewDocumentCommand{\ifphones}{m}{
1060   \seq_if_empty:NTF \g_@@_phonenumbers {} {#1}
1061 }
1062 \AtBeginDocument{
1063   \seq_greverse:N \g_@@_phonenumbers
1064 }
1065 \ExplSyntaxOff
1066 \</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)

```

1067 (*le)
1068 \ExplSyntaxOn
1069 \seq_new:N \g_@@_faxnumbers
1070 \cs_new:Nn \@@_addfaxnumber:n {
1071   \seq_gpush:Nn \g_@@_faxnumbers {#1}
1072 }
1073 \NewDocumentCommand{\fax}{m}{
1074   \@@_addfaxnumber:n { #1 }
1075 }
1076 \NewDocumentCommand{\jointfaxes}{m}{
1077   \seq_use:Nn \g_@@_faxnumbers { #1 }
1078 }
1079 \NewDocumentCommand{\iffaxes}{m}{
1080   \seq_if_empty:NTF \g_@@_faxnumbers {} {#1}
1081 }
1082 \AtBeginDocument{
1083   \seq_greverse:N \g_@@_faxnumbers
1084 }
1085 \ExplSyntaxOff
1086 \</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)

```

1087 (*le)
1088 \ExplSyntaxOn
1089 \seq_new:N \g_@@_mobilenumbers
1090 \cs_new:Nn \@@_addmobilenumber:n {
1091   \seq_gpush:Nn \g_@@_mobilenumbers {#1}
1092 }
1093 \NewDocumentCommand{\mobile}{m}{
1094   \@@_addmobilenumber:n { #1 }
1095 }
1096 \NewDocumentCommand{\jointmobiles}{m}{

```

```

1097 \seq_use:Nn \g_@@_mobilenumbers { #1 }
1098 }
1099 \NewDocumentCommand{\ifmobiles}{m}{
1100 \seq_if_empty:NTF \g_@@_mobilenumbers {} {#1}
1101 }
1102 \AtBeginDocument{
1103 \seq_greverse:N \g_@@_mobilenumbers
1104 }
1105 \ExplSyntaxOff
1106 \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).

```

1107 (*le)
1108 \newcommand*\@returnaddress{<specify return-address using \textbackslash{single-
line-return-address}>}
1109 \renewcommand*\@returnaddress[1]{\renewcommand*\@returnaddress{#1}}
1110 \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).

```

1111 (*le)
1112 \newcommand*\@to{<Specify addressee using \textbackslash{}to\{name\}>}
1113 \renewcommand*\@to[1]{\renewcommand*\@to{#1}}
1114 \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).

```

1115 (*le)
1116 \newcommand*\@toorganization{}
1117 \renewcommand*\@toorganization[1]{\renewcommand*\@toorganization{#1}}
1118 \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).

```

1119 (*le)
1120 \newcommand*\@toaddress{}
1121 \renewcommand*\@toaddress[1]{\renewcommand*\@toaddress{#1}}
1122 \le

```

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

```

1123 (*le)
1124 \newcommand*\@subject{}
1125 \renewcommand*\@subject[1]{\renewcommand*\@subject{#1}}
1126 \le

```

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

```
1127 (*|e)
1128 \renewcommand*\opening}[1]{#1}
1129 </|e)
```

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

```
1130 (*|e)
1131 \newcommand*\@closing{<specify a closing formula using
1132 \textbackslash{closing}\{>}
1133 \renewcommand*\closing}[1]{\renewcommand*\@closing}{#1}}
1134 </|e)
```

`\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

```
1135 (*|e)
1136 \newcommand*\@signature{\vspace*{8ex}}
1137 \renewcommand*\signature}[1]{\renewcommand*\@signature}{#1}}
1138 </|e)
```

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

```
1139 (*|e)
1140 \newcommand*\@carboncopy{}
1141 \newcommand*\carboncopy}[1]{\renewcommand*\@carboncopy}{#1}}
1142 </|e)
```

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

```
1143 (*|e)
1144 \newcommand*\@enclosed{}
1145 \newcommand*\enclosed}[1]{\renewcommand*\@enclosed}{#1}}
1146 </|e)
```

`\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).

```
1147 (*|pt | rp | |e)
1148 \newcommand*\@address{
1149 \PackageError{uantwerpendocs}
1150 {Please, set your multi-line address and contact details using the
1151 '\protect\address{}' command in the preamble of your document}
1152 {See the uantwerpendocs manual}
1153 }
1154 </|pt | rp | |e)
1155 %
1156 <pt | rp>\newcommand*\address}[1]{\renewcommand*\@address}{#1}}
1157 <|e>\renewcommand*\address}[1]{\renewcommand*\@address}{#1}}
```

```

1158 % \end{\macrocode}
1159 % \end{macro}
1160 %
1161 % \begin{macro}{\exampart}
1162 % This macro will set the |\@examgropunumber| tag that will be used on
1163 % the exam title page.
1164 % \begin{macrocode}
1165 (*ex)
1166 \newcommand*\@exampart{}
1167 \newcommand*\exampart[1]{\renewcommand*\@exampart}{#1}}
1168 \end{macrocode}

```

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

```

1169 (*ex)
1170 \newcommand*\@examgroupnumber{}
1171 \newcommand*\examgroupnumber[1]{\renewcommand*\@examgroupnumber}{#1}}
1172 \end{macrocode}

```

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

```

1173 (*ex)
1174 \newcommand*\@examdate}{TBD}
1175 \newcommand*\examdate[1]{\renewcommand*\@examdate}{#1}}
1176 \end{macrocode}

```

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

```

1177 (*ex)
1178 \newcommand*\@examlength}{TBD}
1179 \newcommand*\examlength[1]{\renewcommand*\@examlength}{#1}}
1180 \end{macrocode}

```

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

```

1181 (*ex)
1182 \newcommand*\@tstart}{TBD}
1183 \newcommand*\tstart[1]{\renewcommand*\@tstart}{#1}}
1184 \end{macrocode}

```

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

```

1185 (*ex)
1186 \newcommand*\@tend}{TBD}
1187 \newcommand*\tend[1]{\renewcommand*\@tend}{#1}}
1188 \end{macrocode}

```

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

```

1189 (*ex)
1190 \ExplSyntaxOn

```



```

1191 \seq_new:N \g_@@_rooms
1192 \cs_new:Nn \@@_addroom:n {
1193   \seq_gpush:Nn \g_@@_rooms { #1 }
1194 }
1195 \NewDocumentCommand{\room}{m}{
1196   \@@_addroom:n { #1 }
1197 }
1198 \NewDocumentCommand{\jointrooms}{m}{
1199   \seq_use:Nn \g_@@_rooms { #1 }
1200 }
1201 \NewDocumentCommand{\roomsname}{-}{
1202   \if_int_compare:w \seq_count:N \g_@@_rooms > 1
1203     \uantwerpendocsprop{roomsname}
1204   \else:
1205     \uantwerpendocsprop{roomname}
1206   \fi:
1207 }
1208 \AtBeginDocument{
1209   \seq_greverse:N \g_@@_rooms
1210 }
1211
1212 \ExplSyntaxOff
1213 </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.

```

1214 <*ex>
1215 \newcommand{\@extrainfo}{}
1216 \newcommand\extrainfo[2][separatepage]{
1217   \ifthenelse{\equal{#1}{separatepage}}{
1218     % then
1219     \renewcommand{\@extrainfo}{\clearpage #2 \clearpage}
1220   }
1221   {
1222     % else
1223     \ifthenelse{\equal{#1}{firstpage}}
1224     {
1225       \renewcommand{\@extrainfo}{#2}
1226     }
1227     {
1228       \PackageError{uantwerpendocs}
1229       {The first (optional) argument of '\protect\extrainfo' can
1230        only be 'separatepage' or 'firstpage'}
1231       {See the uantwerpendocs manual}'
1232     }
1233   }
1234 }
1235 </ex>

```

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

```
1236 <*ex>
1237 \newcommand*{\@studentnr}{0}
1238 \newcommand*{\studentnr}[1]{\renewcommand*{\@studentnr}{#1}}
1239 </ex>
```

6.16 Dirty reverse video tricks

```
1240 <*bmt>
1241 \ExplSyntaxOn
1242 \seq_new:N \l_title_seq
1243 \cs_generate_variant:Nn \seq_set_split:Nnn { Nnf }
1244 \cs_new_nopar:Npn \@_reversevideo:f #1
1245 {
1246   \seq_set_split:Nnf \l_title_seq {~} { #1 }
1247   \seq_set_map:NNn \l_title_seq \l_title_seq {\@antwerpendocshl{##1}}
1248   \seq_use:Nnnn \l_title_seq { ~ } { ~ } { ~ }
1249 }
1250 \NewDocumentCommand{\reversevideo}{m}{
1251   \@_reversevideo:f { #1 }
1252 }
1253 \ExplSyntaxOff
1254 </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:

```
1255 <*ct>
1256 \if@twoside
1257 \lhead[\thepage]{\slshape\rightmark}
1258 \chead[]{}
1259 \rhead[\slshape\leftmark]{\thepage}
1260 \lfoot[\antwerpendocsprop{org-ua} -- \@facultyacronym]{\courseversion}
1261 \cfoot[]{}
1262 \rfoot[]{\@title}\ifdefvoid{\@subtitle}{\@subtitle}{ --- \@subtitle}
1263 \else
1264 \lhead[]{\leftmark}
1265 \chead[]{}
1266 \rhead[]{\thepage}
1267 \lfoot[]{\courseversion}
1268 \cfoot[]{\UAntwerpen--\@facultyacronym}
1269 \rfoot[]{\@title}
1270 \fi
1271 </ct>
```

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

```
1272 <*bmt>
1273 \AtBeginDocument{
```

```

1274 \setlength{\headheight}{13.7pt}
1275 \renewcommand*{\headrulewidth}{0pt}
1276 \renewcommand*{\footrulewidth}{0pt}
1277 \newsavebox\smallogo
1278 \savebox\smallogo{\raisebox{-1ex}{\includegraphics[width=2.5cm]{\logopos}}}
1279 \if@twoside
1280 \lhead[]{\footnotesize\slshape\rightmark}
1281 \chead[]{}
1282 \rhead[\footnotesize\slshape\leftmark]{}
1283 \lfoot[\footnotesize\thepage~\textcolor{maincolor}{\textbf{||}}]{\usebox\smallogo}
1284 \cfoot[\footnotesize@bamadoctype]{\footnotesize@bamadoctype}
1285 \rfoot[\usebox\smallogo]{\footnotesize\textcolor{maincolor}{\textbf{||}}~\thepage}
1286 \else
1287 \lhead[]{\footnotesize\slshape\leftmark}
1288 \chead[]{}
1289 \rhead[]{}
1290 \lfoot[]{\usebox\smallogo}
1291 \cfoot[]{\footnotesize@bamadoctype}
1292 \rfoot[]{\footnotesize\textcolor{maincolor}{\textbf{||}}~\thepage}
1293 \fi
1294 \fancypagestyle{plain}{\pagestyle{fancy}}
1295 % \patchcmd{\chapter}{\thispagestyle{plain}}{\thispagestyle{fancy}}{}{}
1296 }
1297 </bmt>

```

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

```

1298 (*pt | rp)
1299 \if@twoside
1300 \lhead[\thepage]{\slshape\rightmark}
1301 \chead[]{}
1302 \rhead[\slshape\leftmark]{\thepage}
1303 \lfoot[]{}
1304 \cfoot[]{}
1305 \rfoot[]{}
1306 \else
1307 \lhead[]{\leftmark}
1308 \chead[]{}
1309 \rhead[]{\thepage}
1310 \lfoot[]{}
1311 \cfoot[]{}
1312 \rfoot[]{}
1313 \fi
1314 </pt | rp>

```

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

```

1315 (*le)
1316 \lhead[]{}
1317 \chead[]{}
1318 \rhead[]{}
1319 \lfoot[\small\textcolor{gray}{\@date}]{\textcolor{gray}{\@date}}
1320 \cfoot[]{}
1321 \rfoot[\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}]
1322 {\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}}

```

1323 \langle /le \rangle

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

```
1324  $\langle$ *ex $\rangle$ 
1325 \lhead[]{}
1326 \chead[]{}
1327 \cfoot[\small \thepage/\pageref{lastpage}]{\small\thepage/\pageref{lastpage}}
1328 \if@examiner
1329 \rhead[\small EXAMINER VERSION]{\small EXAMINER VERSION}
1330 \AddToShipoutPicture{
1331   \put(60,40){\rotatebox{60}{\textcolor{watermark}{
1332     \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}%
1333     \selectfont Examiner Version}}}}
1334 \else
1335 \rhead[\small Student nr. \@studentnr]{\small Student nr. \@studentnr}
1336 \fi
1337  $\langle$ /ex $\rangle$ 
```

Some common code remains:

```
1338  $\langle$ *ct $\rangle$ 
1339 \setlength{\headheight}{13.7pt}
1340 \renewcommand*{\headrulewidth}{1pt}
1341 \renewcommand*{\footrulewidth}{1pt}
1342 \pagenumbering{arabic}
1343  $\langle$ /ct $\rangle$ 
1344  $\langle$ *pt | rp | le $\rangle$ 
1345 \setlength{\headheight}{13.7pt}
1346 \renewcommand*{\headrulewidth}{0pt}
1347 \renewcommand*{\footrulewidth}{0pt}
1348  $\langle$ /pt | rp | le $\rangle$ 
1349  $\langle$ *ex $\rangle$ 
1350 \setlength{\headheight}{13.7pt}
1351 \renewcommand*{\headrulewidth}{0pt}
1352  $\langle$ /ex $\rangle$ 
```

Remains to take care of filling

```
1353  $\langle$ *ct | mt | pt | rp | le $\rangle$ 
1354 \if@filled\else
1355   \raggedright
1356 \fi
1357 \raggedbottom
1358 \onecolumn
1359  $\langle$ /ct | mt | pt | rp | le $\rangle$ 
```

6.18 Copyright notice

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

```
1360  $\langle$ *ct | rp $\rangle$ 
1361 \newcommand{\@crnotice}{
1362   {
```

```

1363 \setlength\parindent{0em}
1364 This document has been typeset using \LaTeX{} and the
1365 \texttt{uantwerpendocs} package.\\
1366 \@copyrightnotices
1367
1368 </ct | rp>
1369 <ct> \@courseversion
1370 <*ct | rp>
1371
1372 CONFIDENTIAL AND PROPRIETARY.
1373
1374 \copyright{} \@versionyear{} \uantwerpendocsprop{org-ua},
1375 \uantwerpendocsprop{arr}.
1376 }
1377 }
1378 </ct | rp>
1379 <*bmt>
1380 \newcommand{\@crnotice}{
1381 \@copyrightnotices
1382 }
1383 </bmt>

```

6.19 Fancy chapter headers for the phdthesis and report class

```

1384 <*pt | rp>
1385 \def\@makechapterhead#1{%
1386 \vspace*{1ex}%
1387 \begin{flushright}
1388 \makebox[0pt][l]{\rule[-0.4em]{10cm}{1.8em}}\textcolor{white}
1389 {\LARGE\textbf{~\chaptername~}}
1390 \raisebox{-24pt}{
1391 \begin{tikzpicture}
1392 \foreach \theta in {0,5,...,355} {
1393 \node[color=white] at (\theta:0.025)
1394 {\fontsize{72}{12}\selectfont\textbf{\thechapter}};
1395 }
1396 \node[color=gray] at (0,0)
1397 {\fontsize{72}{12}\selectfont\textbf{\thechapter}};
1398 \end{tikzpicture}
1399 }\hspace*{-8pt}
1400 \par\nobreak
1401 \interlinepenalty\M
1402 \huge\textbf{\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1}}
1403 \par\nobreak
1404 \end{flushright}
1405 \rule{\textwidth}{1pt}
1406 \vspace{5\p@}\par\nobreak
1407 }
1408 \def\@schapter#1{%
1409 \@makeschapterhead{#1}%
1410 \@afterheading
1411 }

```

```

1412 \def\@makeschapterhead#1{%
1413   \vspace*{1ex}%
1414   \begin{flushright}
1415     \LARGE\textbf{\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}-#1}}
1416   \end{flushright}
1417   \rule{\textwidth}{1pt}
1418   \vspace{5\p@\}\par
1419 }
1420 % overwrite appendix
1421 \def\appendix{
1422   \setcounter{chapter}{0}
1423   \renewcommand*{\thechapter}{\Alph{chapter}}
1424   \renewcommand*{\chaptername}{appendixname}
1425 }
1426 </pt | rp)

```

6.20 Fancy chapter headers for the bamathesis class

```

1427 <*bmt)
1428 \addtokomafont{section}{\color{basecolor}}
1429 \addtokomafont{chapter}{\color{basecolor}}
1430 </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:

```

1431 <*ct)
1432 \renewcommand\maketitle{%
1433   \pagestyle{empty}
1434   \begin{titlepage}
1435     \AddToShipoutPicture*{%
1436       \put(0,0){%
1437         \if@modern
1438           \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1439             \clip (0,0) rectangle(\paperwidth,\paperheight);
1440
1441             \begin{scope}
1442               \clip (2.125,20.192) rectangle (\paperwidth,6);
1443               \fill[sidecolor]
1444                 (2.125,20.192) rectangle (\paperwidth,6);
1445               \node[anchor=south west]
1446                 at (2.125,6)
1447                 {\ifx\@titlepageimage\@empty
1448                  \else
1449                   \includegraphics[keepaspectratio,
1450                    scale=0.01,
1451                    min size={18.875cm}{14.192cm}]{\@titlepageimage}
1452                  \fi};
1453             \end{scope}

```

```

1454
1455
1456     \node
1457     [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1458     at (2.125,27)
1459     {
1460         \textsf{\textbf{\@title}}
1461     };
1462
1463     \node
1464     [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1465     at (2.125,25.5)
1466     {
1467         \textsf{\textbf{\@subtitle}}
1468     };
1469
1470     \node
1471     [anchor=base west,maincolor,text width=13.75cm,align=left,font=\LARGE]
1472     at (2.125,24)
1473     {\textsf{\textbf{\@author}}};
1474
1475
1476     \node
1477     [anchor=west,text width=13.75cm,align=left,font=\large,uauaside]
1478     at (2.125,22)
1479     {\textsf{\jointcourseswithcodes{\}}};
1480
1481     \fill[maincolor] (2.125,6)
1482     -- (\paperwidth,6)
1483     -- (\paperwidth,2.625)
1484     -- (2.55,2.625)
1485     arc (-90:-180:0.425)
1486     -- cycle;
1487
1488     \node[white,anchor=west,align=left,font=\large]
1489     (SN) at (2.55,5.1)
1490     {
1491         \begin{tabular}{@{}l@{~\,}p{14.5cm}}
1492             \textsf{\lecturersname}
1493             & \textsf{\textbf{\jointlecturers{ | }}}
1494         \end{tabular}
1495     };
1496
1497     \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
1498     at (2.55,3.7)
1499     {\textsf{\@degree{}}\}
1500     \textsf{\textbf{\@faculty{}} \ifx\@department\empty\else |
1501         \@department{ } \fi | \@academicyear \hfill
1502         \@publishercode{}}\}
1503     \textsf{\@publisher{}};
1504
1505     \node[anchor=west] at (2.125,1.313)
1506     {\includegraphics[width=4.75cm]{\logopos}};
1507 \end{tikzpicture}

```

```

1508 \else
1509 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1510 \clip (0,0) rectangle(\paperwidth,\paperheight);
1511 \if@cameraready
1512 \else
1513 \fill[uauamain] (0,29.7) -- (2.2,29.7) -- (2.2,21.435) arc
1514 (0:-90:0.235) -- (0,21.2) -- cycle;
1515 \node[anchor=west] at (2.2,1.8)
1516 {\includegraphics[width=5.2cm]{\logoposua}};
1517 \fi
1518
1519 \node
1520 [anchor=north west,text width=14.75cm,align=left]
1521 at (5,27.1)
1522 {
1523 \fontsize{16}{20}\selectfont\textsf{\textbf{\uantwerpendocsprop{acyearname}}}\[1ex]
1524 \fontsize{16}{20}\selectfont\textsf{\@academicyear}
1525 };
1526
1527 \node
1528 [anchor=north west,text width=14.75cm,align=left]
1529 at (5,22.7)
1530 {
1531 \fontsize{16}{20}\selectfont\textsf{\@faculty{}}
1532 \ifx\@department\empty\else | \@department{} \fi}
1533 };
1534
1535 \node
1536 [anchor=north west,text width=14.75cm,align=left] (title)
1537 at (5,20.9)
1538 {
1539 \fontsize{24}{30}\selectfont\textsf{\textbf{\@title}}\[1ex]
1540 \fontsize{18}{24}\selectfont\textsf{\@subtitle}
1541 };
1542
1543 \node
1544 [anchor=north west,below=of title,
1545 text width=14.75cm,align=left,
1546 yshift=-0.5cm]
1547 {
1548 \fontsize{12}{15}\selectfont{\textsf{\@degree}}
1549 };
1550
1551 \node
1552 [anchor=north west,text width=14.75cm,align=left] (title)
1553 at (5,13.3)
1554 {
1555 \fontsize{12}{15}\selectfont\textsf{\textbf{\jointlecturers{\}}}}
1556 };
1557
1558 \node
1559 [anchor=north west,text width=14.75cm,align=left] (title)
1560 at (5,10)
1561 {

```



```

1562         \fontsize{12}{15}\selectfont\textsf{\jointcourseswithcodes{\}}
1563     };
1564
1565     \node[anchor=east]
1566     at (19,1.8)
1567     {
1568         \fontsize{12}{15}\selectfont\textsf{@publishercode}
1569     };
1570
1571     \end{tikzpicture}
1572     \fi
1573 }
1574 }
1575 \end{titlepage}%
1576 ~\par\relax
1577 \clearpage
1578 \if@copyright
1579 \backgroundsetup{contents={Copyright University of Antwerp, All
1580     Rights Reserved}}
1581 \fi
1582 \vspace*{\stretch{1}}
1583 \@crnotice
1584 \clearpage
1585 \setcounter{footnote}{0}%
1586 \global\let\thanks\relax
1587 \global\let\maketitle\relax
1588 \global\let\@thanks\@empty
1589 \global\let\title\relax
1590 \global\let\author\relax
1591 \global\let\date\relax
1592 \global\let\and\relax
1593 \pagestyle{fancy}
1594 \thispagestyle{empty}
1595 }
1596 </ct>

```

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

```

1597 (*ct)
1598 \newcommand\makefinalpage{
1599     \if@cameraready
1600     \else
1601     \cleardoublepage
1602     \thispagestyle{empty}
1603     \if@copyright\NoBgThispage\fi
1604     ~% intentionally blank page
1605     \clearpage
1606     \thispagestyle{empty}
1607     \if@copyright\NoBgThispage\fi
1608     \AddToShipoutPicture*{%
1609         \put(0,0){%
1610             \if@modern
1611             \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1612                 \clip (0,0) rectangle(\paperwidth,\paperheight);

```

```

1613     \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
1614 \end{tikzpicture}
1615 \else
1616 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1617     \clip (0,0) rectangle(\paperwidth,\paperheight);
1618     \fill[uauamain] (0,21.2) rectangle (21,29.7);
1619 \end{tikzpicture}
1620 \fi
1621 }
1622 }
1623 ~
1624 \fi
1625 }
1626 </ct>

```

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

```

1627 <*bmt>
1628 \renewcommand\maketitle{%
1629     \pagestyle{empty}
1630     \begin{titlepage}
1631         \AddToShipoutPicture*{%
1632             \put(0,0){%
1633                 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1634                     \clip (0,0) rectangle(\paperwidth,\paperheight);
1635                     \node
1636                     [anchor=north east,align=right]
1637                     at (\paperwidth-1.6cm,\paperheight-2.6cm)
1638                     {\bfseries\large
1639                     \quantwerpendocsprop{acyearname}\[\.75ex]\Large\@academicyear};
1640                     \node (title)
1641                     [anchor=north west,align=left,
1642                     text width={\paperwidth-5.1cm},font=\Huge,text=white,
1643                     xshift=1pt]
1644                     at (3.5cm,\paperheight-6.4cm)
1645                     {\sethlcolor{maincolor}%
1646                     \textsf{\textbf{\reversevideo{\@title}}}\}
1647                     \textsf{\reversevideo{\@subtitle}}};
1648                     \node
1649                     [anchor=north west,font=\LARGE,yshift=-1cm,xshift=-1pt]
1650                     at (title.south west)
1651                     {%
1652                     \textsf{\textbf{\@author}}
1653                     };
1654                     \node
1655                     [anchor=west,align=left,
1656                     text width={\paperwidth-5.1cm},font=\normalsize]
1657                     at (3.5cm,12cm)
1658                     {\textsf{\@bamadoctype}\}
1659                     \textsf{\textbf{\@degree}}
1660                     };
1661                     \node
1662                     \node
1663                     \node

```

```

1664     [anchor=west,align=left,
1665     text width={\paperwidth-5.1cm},font=\normalsize]
1666     at (3.5cm,7.5cm)
1667     {\supervisorsname{\}}
1668     \textbf{\jointsupervisorswithaffiliation{\}\{-\~-}\}}%
1669     \cosupervisorsname{\}}
1670     \textbf{\jointcosupervisorswithaffiliation{\}\{-\~-}\}}%
1671     \extsupervisorsname{\}}
1672     \textbf{\jointextsupervisorswithaffiliation{\}\{-}\}}
1673     };
1674
1675     \ifx\@companylogo\@empty
1676     \else
1677     \node[anchor=south east] at
1678     (\pagewidth-1.6cm,1.5cm)
1679     {\@companylogo};
1680     \fi
1681
1682
1683     \node[anchor=south west] at
1684     (1.6cm,1.5cm)
1685     {\includegraphics[width=6.2cm]{\logopos}};
1686     \end{tikzpicture}
1687   }
1688 }
1689 \end{titlepage}%
1690 ~\par\relax
1691 \clearpage
1692 \vspace*{\stretch{1}}
1693 \@crnotice
1694 \clearpage
1695 \setcounter{footnote}{0}%
1696 \global\let\thanks\relax
1697 \global\let\maketitle\relax
1698 \global\let\@thanks\@empty
1699 \global\let\title\relax
1700 \global\let\author\relax
1701 \global\let\date\relax
1702 \global\let\and\relax
1703 \pagestyle{fancy}
1704 \thispagestyle{empty}
1705 }
1706 </bmt>

```

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

```

1707 < *bmt >
1708 \newcommand\makefinalpage{
1709 }
1710 < /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:

```
1711 (*pt)
1712 \renewcommand\maketitle{%
1713   \pagestyle{empty}
1714   \if@bare\else
1715   \begin{titlepage}
1716     \AddToShipoutPicture*{%
1717       \put(0,0){%
1718         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1719           \useasboundingbox (0,0) rectangle(\paperwidth,\paperheight);
1720           \fill[lightgray]
1721             (2.125,19) rectangle (\paperwidth+3mm,6);
1722           \begin{scope}
1723             \clip (2.125,19) rectangle (\paperwidth+3mm,6);
1724             \node[anchor=south west]
1725               at (2.125,6)
1726               {\ifx\@titlepageimage\@empty
1727                \else
1728                 \includegraphics[keepaspectratio,
1729                  scale=0.01,
1730                  min size={16.175cm}{13cm}]{\@titlepageimage}
1731                \fi};
1732           \end{scope}
1733
1734           \node
1735             [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1736             at (2.125,23.5)
1737             {
1738               \textsf{\textbf{\@title}}
1739             };
1740
1741           \node
1742             [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1743             at (2.125,21.5)
1744             {
1745               \textsf{\textbf{\@subtitle}}
1746             };
1747
1748           \node
1749             [anchor=base west,maincolor,
1750             text width=13.75cm,align=left,font=\LARGE]
1751             at (2.125,20)
1752             {\textsf{\textbf{\@author}}};
1753
1754           \fill[maincolor] (2.125,6)
1755             -- (\paperwidth+3mm,6)
1756             -- (\paperwidth+3mm,2.625)
1757             -- (2.55,2.625)
```

```

1758     arc (-90:-180:0.425)
1759     -- cycle;
1760
1761     \node[white,anchor=west,align=left,font=\large]
1762     (SN) at (2.55,4.9)
1763     {
1764         \begin{tabular}{@{}l@{-},}p{11.5cm}}
1765         \textsf{\supervisorsname{}}
1766         & \textsf{\textbf{\jointsupervisors{ | }{}}}
1767         \end{tabular}
1768     };
1769
1770
1771     \node[white,anchor=west,text width=14.5cm,align=left,font=\small]
1772     at (2.55,3.7)
1773     {\textsf{\uantwerpendocsprop{pthesisnamei}
1774         \@degree{}}}\
1775     \textsf{\textbf{\@faculty{ } \ifx\@department\empty\else |
1776         \@department{ } \fi | \@defenselocation, \@defensedate}}};
1777
1778     \node[anchor=west] at
1779     (2.125,1.313)
1780     {\includegraphics[width=4.75cm]{\logoposua}};
1781     \end{tikzpicture}
1782 }
1783 }
1784 \end{titlepage}%
1785 ~\par\relax
1786 \cleardoublepage
1787 \fi
1788 \begin{center}
1789 \includegraphics[width=4.75cm]{\logoposua}
1790 \vfill
1791 \@faculty\
1792 \@department\par
1793 \vfill
1794 \Huge\textsf{\@title}\par
1795 \large\textsf{\@subtitle}\par
1796 \vfill
1797 \normalsize\uantwerpendocsprop{pthesisnamei}\
1798 \@degree\
1799 \uantwerpendocsprop{pthesisnameii}\
1800 \medskip
1801 \textbf{\@author}
1802 \vfill
1803 \begin{minipage}[b]{0.4\textwidth}
1804     \@defenselocation, \@defensedate
1805 \end{minipage}
1806 \hfill
1807 \begin{minipage}[b]{0.4\textwidth}
1808     \flushright
1809     \supervisorsname{\}
1810     \jointsupervisors{\}\{
1811 \end{minipage}

```

```

1812 \end{center}
1813 \clearpage
1814 \noindent\textbf{\uantwerpendocsprop{juryname}}\hfill\[[1ex]
1815 \textbf{\uantwerpendocsprop{jurychairmanname}}\hfill\break
1816 \@jurychairman{\ifdefvoid{\@jurychairmanaff}{}, \@jurychairmanaff}\
1817 \hfill\break
1818 \textbf{\supervisorsname{}}\hfill\break
1819 \jointsupervisorswithaffiliation{\}\{\}\
1820 \hfill\break
1821 \textbf{\uantwerpendocsprop{jurymembersname}}\hfill\break
1822 \jointjurymembers{\}\
1823 \hfill\break
1824 \vfill
1825 \noindent\textbf{Contact}\
1826 \smallskip
1827 \@author\
1828 \@affiliation\
1829 \@address\
1830 \vfill
1831 \noindent\copyright{} \@defensedate{} \@author\
1832 \uantwerpendocsprop{arr}.
1833 \vfill
1834 \noindent\begin{minipage}[b]{.5\linewidth}
1835 \ifdefempty{\@isbn}{\}{ISBN \@isbn}~\
1836 \ifdefempty{\@depot}{\}{Wettelijk depot \@depot}~\
1837 \end{minipage}
1838 \hfill
1839 \ifdefempty{\@isbn}{\}{
1840 \begin{minipage}[b]{.5\linewidth}
1841 \expandafter\EAN \@isbn
1842 \end{minipage}
1843 }
1844 \thispagestyle{empty}
1845 \ifx\@titel\empty
1846 \else
1847 \clearpage
1848 \begin{center}
1849 \vfill
1850 ~
1851 \vfill
1852 Dutch title:
1853 \vfill
1854 \Huge\textsf{\@titel}\par
1855 \large\textsf{\@subtitel}\par
1856 \vfill
1857 ~
1858 \vfill
1859 \end{center}
1860 \fi
1861 \setcounter{footnote}{0}%
1862 \global\let\thanks\relax
1863 \global\let\maketitle\relax
1864 \global\let\@thanks\@empty
1865 \global\let\title\relax

```

```

1866 \global\let\author\relax
1867 \global\let\date\relax
1868 \global\let\and\relax
1869 \clearpage
1870 \pagestyle{fancy}
1871 \thispagestyle{empty}
1872 }
1873 </pt>

```

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

```

1874 <{*pt}
1875 \newcommand\makefinalpage{
1876   \if@bare\else
1877   \cleardoublepage
1878   \thispagestyle{empty}
1879   ~% intentionally blank page
1880   \clearpage
1881   \thispagestyle{empty}
1882   \AddToShipoutPicture*{%
1883     \put(0,0){%
1884       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1885         \useasboundingbox (0,0) rectangle (\paperwidth,\paperheight);
1886         \fill[sidecolor] (-3mm,-3mm) rectangle (2.125cm,2.625cm);
1887       \end{tikzpicture}
1888     }
1889   }
1890   ~
1891   \fi
1892 }
1893 </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:

```

1894 <{*rp}
1895 \renewcommand\maketitle{%
1896   \pagestyle{empty}
1897   \begin{titlepage}
1898     \AddToShipoutPicture*{%
1899       \put(0,0){%
1900         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1901           \clip (0,0) rectangle(\paperwidth,\paperheight);
1902           \fill[lightgray]
1903             (2.125,20.192) rectangle (\paperwidth,6);
1904           \begin{scope}
1905             \clip (2.125,20.192) rectangle (\paperwidth,6);
1906             \node[anchor=south west]

```

```

1907         at (2.125,6)
1908         {\ifx\@titlepageimage\@empty
1909         \else
1910         \includegraphics[keepaspectratio,
1911         scale=0.01,
1912         min size={18.875cm}{14.192cm}]{\@titlepageimage}
1913         \fi};
1914     \end{scope}
1915
1916     \node
1917     [anchor=west,text width=17cm,align=left,font=\Huge,uauaside]
1918     at (2.125,\paperheight-3cm)
1919     {
1920         \textsf{\textbf{\@title}}
1921     };
1922
1923     \node
1924     [anchor=west,text width=17cm,align=left,font=\Large,uauaside]
1925     at (2.125,\paperheight-5cm)
1926     {
1927         \textsf{\textbf{\@subtitle}}
1928     };
1929
1930     \node
1931     [anchor=base west,maincolor,
1932     text width=17cm,align=left,font=\LARGE]
1933     at (2.125,\paperheight-6.5cm)
1934     {\textsf{\textbf{\@author}}};
1935
1936     \fill[maincolor] (2.125,6)
1937     -- (\paperwidth,6)
1938     -- (\paperwidth,2.625)
1939     -- (2.55,2.625)
1940     arc (-90:-180:0.425)
1941     -- cycle;
1942
1943     \node[white,anchor=west,text width=17cm,align=left,font=\small]
1944     at (2.55,5.3)
1945     {\textsf{\textbf{\@extra}}};
1946
1947     \node[white,anchor=west,text width=17cm,align=left,font=\small]
1948     at (2.55,4)
1949     {\textsf{\textbf{\@affiliation}}
1950         | \@versionyear}\
1951         \@address}};
1952
1953     \node[anchor=west] at
1954     (2.125,1.313)
1955     {\includegraphics[width=4.75cm]{\logopos}};
1956 \end{tikzpicture}
1957 }
1958 }
1959 \end{titlepage}%
1960 ~\par\relax

```



```

1961 \cleardoublepage
1962 \begin{center}
1963   \includegraphics[width=4.75cm]{\logopos}
1964   \vfill
1965   \@affiliation\\
1966   \@extra\par
1967   \vfill
1968   \Huge\textsf{\@title}\par
1969   \large\textsf{\@subtitle}\par
1970   \vfill
1971   \textbf{\@author}
1972   \vfill
1973 \end{center}
1974 \clearpage
1975 \vfill
1976 \textbf{Contact}\\
1977 \smallskip
1978 \@author\\
1979 \@affiliation\\
1980 \@address\\
1981 \vfill
1982 \copyright{} \@versionyear{} \@author\\
1983 \uantwerpendocsprop{arr}.
1984 \vfill
1985 \setcounter{footnote}{0}%
1986 \global\let\thanks\relax
1987 \global\let\maketitle\relax
1988 \global\let\@thanks\@empty
1989 \global\let\title\relax
1990 \global\let\author\relax
1991 \global\let\date\relax
1992 \global\let\and\relax
1993 \pagestyle{fancy}
1994 \thispagestyle{empty}
1995 \
1996 }
1997 </rp>

```

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

```

1998 <rp>
1999 \newcommand\makefinalpage{
2000   \cleardoublepage
2001   \thispagestyle{empty}
2002   ~% intentionally blank page
2003   \clearpage
2004   \thispagestyle{empty}
2005   \begin{tikzpicture}[remember picture,overlay]
2006     \node at (current page.center) {
2007       \begin{tikzpicture}[inner sep=0pt]
2008         \clip (0,0) rectangle(\paperwidth,\paperheight);
2009         \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
2010       \end{tikzpicture}
2011     };

```

```

2012 \end{tikzpicture}
2013 }
2014 </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.

```

2015 (*le)
2016 \newcommand\maketitle{%
2017 \pagestyle{fancy}
2018 \thispagestyle{empty}
2019 \AddToShipoutPicture*{%
2020 \put(0,0){%
2021 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2022 \clip (0,0) rectangle(\paperwidth,\paperheight);
2023 \path (current page.north west) +(1.8cm,-1.2cm)
2024 node[anchor=north west] {
2025 \includegraphics[height=1.1cm]{\@logo}
2026 };
2027 \if@nofoldline\else
2028 \draw (current page.north west)
2029 +(1cm,-98mm) -- +(1.5cm,-98mm);
2030 \fi
2031 % 90 x 45
2032 % pos: 20mm van kant, 15mm van onderkant
2033 \path (current page.north east) +(-100mm,-65mm)
2034 node[anchor=west,text width=80mm,align=left] {
2035 \scriptsize\textcolor{gray}{\uline{\@returnaddress}}\}*
2036 \normalsize\@to\}*
2037 \ifx\@toorganization\@empty\else\@toorganization\*\fi%
2038 \@toaddress
2039 };
2040 \end{tikzpicture}
2041 }
2042 }
2043 ~\}[3ex]
2044 \textcolor{uauaside}{\textbf{\@sender}}
2045 \ifx\@senderrole\@empty\}[1.75ex]\else \*\@senderrole\}[1.75ex]\fi
2046 \@faculty{
2047 \ifx\@unit\@empty\else\*\@unit\fi~\}[1.75ex]
2048 \@address\}[1.75ex]
2049 \ifemails{E~\jointemails{\phantom{E~}}\}
2050 \ifphones{T~\jointphones{\phantom{T~}}\}
2051 \iffaxes{F~\jointfaxes{\phantom{F~}}\}
2052 \ifmobiles{M~\jointmobiles{\phantom{M~}}\}
2053 ~\}[4ex]
2054 \begin{tikzpicture}[anchor=north west,align=left,outer sep=0,inner sep=0]
2055 \path
2056 (0,0) node { \scriptsize \strut
2057 \textcolor{gray}{\uppercase\expandafter{\uantwerpendocsprop{datename}}} } }

```

```

2058 (4cm,0) node { \scriptsize \strut
2059 \textcolor{gray}{\uppercase\expandafter{\uantwerpendocsprop{subjectname}} } }
2060 (0,-2.5ex) node { \strut \@date }
2061 (4cm,-2.5ex) node[align=left] { \strut \@subject };
2062 \end{tikzpicture}~\{4ex]
2063 }
2064 \le)

```

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

```

2065 (*le)
2066 \AtEndDocument{
2067 \closing\{3ex}\signature~\{3ex]
2068 \sender
2069 \ifx\senderrole\empty\{8ex}\else\*\senderrole\{8ex}\fi
2070 \setlength{\parskip}{0em}
2071 \ifx\carboncopy\empty\else CC: \carboncopy\{4ex}\fi
2072 \ifx\enclosed\empty\else ENCL: \enclosed\fi
2073 \label{lastpage}
2074 }
2075 \le)

```

6.25 Title page for the exam class

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

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

```

2076 (*ex)
2077 \renewcommand\maketitle{%
2078 \pagestyle{fancy}
2079 \AddToShipoutPicture*{%
2080 \put(0,0){%
2081 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2082 \clip (0,0) rectangle(\paperwidth,\paperheight);
2083 \fill[lightgray]
2084 (2.125,\paperheight-7cm) rectangle (\paperwidth,6);
2085
2086 \node
2087 [anchor=west,text width={\paperwidth-5cm},align=left]
2088 at (2.125,\paperheight-3cm)
2089 {%
2090 \fontfamily{phv}\fontsize{18}{22}\fontseries{b}%
2091 \fontshape{n}\selectfont%
2092 \@course{}
2093 \ifx\exampart\empty
2094 \else --- \exampart\fi
2095 };
2096 \node
2097 [anchor=west,text width={\paperwidth-5cm},align=left]
2098 at (2.125,\paperheight-4cm)

```

```

2099   {%
2100     \fontfamily{phv}\fontsize{12}{18}\fontseries{b}%
2101     \fontshape{n}\selectfont%
2102     \@coursecode
2103   };
2104
2105   \node
2106   [anchor=west,text width={\paperwidth-5cm},align=left,font=\large]
2107   at (2.125,{\paperheight-5cm})
2108   {%
2109     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2110     \fontshape{n}\selectfont%
2111     \uantwerpendocsprop{seriesname} \@examgroupnumber{} \hfill \@examdate{}
2112   };
2113
2114   \node[anchor=south west,align=left,inner sep=0pt] at (3,21)
2115   {%
2116     \fontfamily{phv}\fontsize{14}{19}\fontseries{b}%
2117     \fontshape{n}\selectfont%
2118     \uantwerpendocsprop{examname}
2119   };
2120
2121   \node[anchor=south west,align=left,inner sep=0pt] at (3,19)
2122   {%
2123     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2124     \fontshape{n}\selectfont%
2125     \uantwerpendocsprop{lastname}
2126   };
2127   \foreach \nn in {0,1,...,33} {
2128     \draw[fill=white] (3,18) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2129   }
2130
2131   \node[anchor=south west,align=left,inner sep=0pt] at (3,17)
2132   {%
2133     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2134     \fontshape{n}\selectfont%
2135     \uantwerpendocsprop{firstname}
2136   };
2137
2138   \foreach \nn in {0,1,...,23} {
2139     \draw[fill=white] (3,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2140   }
2141
2142   \node[anchor=south west,align=left,inner sep=0pt] at (16,17)
2143   {%
2144     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2145     \fontshape{n}\selectfont%
2146     \uantwerpendocsprop{docketname}
2147   };
2148   \foreach \nn in {0,1,...,7} {
2149     \draw[fill=white] (16,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2150   }
2151
2152   \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]

```

```

2153 at (3,14)
2154 {%
2155 \fontfamily{phv}\fontsize{12}{21}\fontseries{m}%
2156 \fontshape{n}\selectfont%
2157 \antwerpendocsprop{examdurationname}: \@examlength
2158 };
2159 \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2160 at (3,11)
2161 {%
2162 \fontfamily{phv}\fontsize{12}{15}\fontseries{m}%
2163 \fontshape{n}\selectfont%
2164 \begin{tabular}{@{}l@{}l}%
2165 \antwerpendocsprop{examstartname}& : & \@tstart\\
2166 \antwerpendocsprop{examendname} & : & \@tend
2167 \end{tabular}
2168 };
2169
2170 \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2171 at (3,8)
2172 {%
2173 \fontfamily{phv}\fontsize{12}{21}\fontseries{m}%
2174 \fontshape{n}\selectfont%
2175 \roomsname: \jointrooms{, }
2176 };
2177
2178 \node
2179 [anchor=base west,uauamain,
2180 text width={\paperwidth-5cm},align=left,font=\LARGE]
2181 at (2.125,{\paperheight-6.5cm})
2182 {\textsf{\textbf{\@author}}};
2183
2184 \fill[gray] (2.125,6)
2185 -- (\paperwidth,6)
2186 -- (\paperwidth,2.625)
2187 -- (2.55,2.625)
2188 arc (-90:-180:0.425)
2189 -- cycle;
2190
2191 \node[white,anchor=west,align=left,font=\large]
2192 (SN) at (2.55,4.9)
2193 {
2194 \begin{tabular}{@{}l@{-\,}p{14.5cm}}
2195 \textsf{\lecturersname}
2196 & \textsf{\textbf{\jointlecturers{ | }}}
2197 \end{tabular}
2198 };
2199
2200 \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
2201 at (2.55,3.7)
2202 {\textsf{\@degree}}\
2203 \textsf{\textbf{\@faculty}}};
2204
2205 \node[anchor=west] at (2.125,1.313)
2206 {\includegraphics[width=4.75cm]{\logopos}};

```

```

2207     \end{tikzpicture}
2208   }
2209 }
2210 ~\par\relax
2211 \clearpage
2212 \lfoot[\small \@shorttitle]{\small \@shorttitle}
2213 \rfoot[\small Groep \@examgroupnumber{} ---
2214 \@academicyear]{\small Groep \@examgroupnumber{} --- \@academicyear}
2215 \renewcommand*{\footrulewidth}{1pt}
2216 \@extrainfo{}
2217 }
2218 </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).

```

2219 <*ex>
2220 \newcounter{question}
2221 \setcounter{question}{0}
2222 \renewcommand*\thequestion{\@arabic\c@question}
2223 \newcommand{question}[1]{
2224   \stepcounter{question}
2225   \thequestion.~#1%
2226 }
2227 </ex>

```

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

```

2228 <*ex>
2229 \newcommand*\questionweight[1]{%
2230   \hspace{\fill}
2231   \begin{tabular}{|c|}
2232     \hline
2233     \small \uantwerpendocsprop{weightname}: #1\\
2234     \hline
2235   \end{tabular}\\
2236 }
2237 </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.

```

2238 <*ex>
2239 \newcommand{engdut}[2]{%
2240   \begin{tabular}{ccc}%
2241     \selectlanguage{english}%
2242     \begin{minipage}[t]{0.45\textwidth}%
2243       #1
2244     \end{minipage}%
2245     &~~~&
2246     \selectlanguage{dutch}%

```

```

2247         \begin{minipage}[t]{0.45\textwidth}%
2248             #2
2249         \end{minipage}%
2250     \end{tabular}
2251     \selectlanguage{english}%
2252 }
2253 \end{ex}

```

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

```

2254 \end{ex}
2255 \newcommand*\@mcsymbol{\square}
2256 \newcommand*\setmcsymbol[1]{\renewcommand\@mcsymbol{#1}}
2257 \end{ex}

```

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

```

2258 \end{ex}
2259 \newcommand\mc[1]{%
2260     \hfill\break\quad\begin{tabular}{cc}
2261         & $\@mcsymbol$
2262         & &
2263         & \begin{minipage}[t]{0.9\textwidth}%
2264             #1
2265         \end{minipage}%
2266     \end{tabular}
2267 }
2268 \end{ex}

```

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

```

2269 \end{ex}
2270 \newcommand{\engdutmc}[2]{%
2271     \hfill\break\begin{tabular}{cccc}
2272         & $\@mcsymbol$
2273         & & &
2274         & \selectlanguage{english}%
2275         & \begin{minipage}[t]{0.42\textwidth}%
2276             #1
2277         \end{minipage}%
2278         & ---& &
2279         & \selectlanguage{dutch}%
2280         & \begin{minipage}[t]{0.42\textwidth}%
2281             #2
2282         \end{minipage}%
2283     \end{tabular}
2284     \selectlanguage{english}%
2285 }
2286 \end{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.

```

2287 <*ex>
2288 \newcommand\insertsolutionspagepartial[1]{
2289   ~\relax
2290   \AddToShipoutPicture*{%
2291     \put(0,0){%
2292       \begin{tikzpicture}
2293         \clip (0,0) rectangle (21,#1);
2294 % \draw[densely dotted, step=0.5cm,black!20] (0.999,0.990) grid (20,1.5);
2295 \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
2296 \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
2297
2298 \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,27);
2299 \draw[densely dotted, step=0.5cm,black!20] (0.999,27) grid (16,28);
2300 \draw[densely dotted, step=0.5cm,black!20] (19.499,27) grid (20,28);
2301 \draw[densely dotted, step=0.5cm,black!20] (0.99,27.999) grid
2302 (20,28.5);
2303 \draw[ultra thick] (1,#1) -- (20,#1);
2304 \end{tikzpicture}
2305 }
2306 }%
2307 \clearpage
2308 \relax
2309 }
2310 </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').

```

2311 <*ex>
2312 \newcommand\insertsolutionspage[1]{
2313   \clearpage
2314   \AddToShipoutPicture*{%
2315     \put(0,0){%
2316       \begin{tikzpicture}
2317         \clip (0,0) rectangle (21,29.5);
2318         \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
2319         \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
2320
2321         \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,28);
2322         \draw[densely dotted, step=0.5cm,black!20] (0.999,28) grid (16,28.5);
2323         \draw[densely dotted, step=0.5cm,black!20] (19.499,28) grid (20,28.5);
2324       \end{tikzpicture}
2325     }
2326     \put(120,150){\rotatebox{60}{\textcolor{watermark}{
2327       \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}\selectfont
2328       #1}
2329     }
2330   }
2331 }%

```



```

2332 ~\relax
2333 }
2334 </ex>

```

We add a lastpage label to the final page

```

2335 <*ex>
2336 \AtEndDocument{
2337   \label{lastpage}
2338 }
2339 </ex>
2340 % \end{macrocode
2341 %
2342 % \subsection{References}
2343 %   \begin{macrocode}
2344 <*ct | bmt | pt | rp>
2345 \AtBeginDocument{
2346   \@ifpackageloaded{hyperref}{
2347     \hypersetup{
2348       breaklinks=true,
2349       colorlinks=true,
2350       citecolor=black,
2351       filecolor=black,
2352       linkcolor=black,
2353       pageanchor=true,
2354       pdfpagemode=UseOutlines,
2355       urlcolor=black,
2356       pdftitle={\@title},
2357       pdfsubject={\@subtitle},
2358       pdfauthor={\@author}
2359     }
2360   }{}
2361 }
2362 </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\}\}
  \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 background (in maincolor) with white

```

```

    margins
\item[graphicfill]
    a graphic canvas without white margins (graphic can be photo,
    graph, \ldots)
\item[graphic] a graphic canvas with white margins (graphic can be
    anything)
\end{description}
They are specified as options to the frame environment (or its
derivatives).

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

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

\begin{frame}[negative,t]
    {A negative slide}
    {with a subtle subtitle}
    Don't do this! Don't use a title and subtitle, nor straight text
    but put material on this slide that does not touch or cross the
    edges of the background!\\
    E.g., the graph on the bottom right
    \place[anchor=south east] at (0.9,0.1) {
        \begin{tikzpicture}[white]
            \begin{axis}
                [width=4cm,height=5cm,grid=both,font=\footnotesize]
                \addplot[white] {x^2};
            \end{axis}
        \end{tikzpicture}
    }
    The best advice is not to reserve this canvas for title frames and
    intermission slides.
\end{frame}

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

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

```

```

\end{description}

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

\end{frame}

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

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

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

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

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

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

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

```

```

\end{center}
\item \command{includegraphics[width=3cm]{\command{logoneg}\}}\
\begin{center}
\begin{tikzpicture}
\draw[fill] (0,0) rectangle node
{\includegraphics[width=3cm]{\logoneg}} (4,1.25);
\end{tikzpicture}
\end{center}
\item \command{includegraphics[width=3cm]{\command{logomonowhite}\}}\
\begin{center}
\begin{tikzpicture}
\draw[fill] (0,0) rectangle node
{\includegraphics[width=3cm]{\logomonowhite}} (4,1.25);
\end{tikzpicture}
\end{center}
\end{itemize}
\end{frame}

\subsection{With graphic eye candy}

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

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

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

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

```



```

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

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

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

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

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

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

```

```

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

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

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

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

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

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

\begin{bhframe}[thgraphic,t]
  {Some Random Title}{Please, adapt!}

```

```

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

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

\section{Intermission slides}

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

\subsection{Standard section slides}

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

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

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

  Example:\}[1ex]
  \begin{codesnippet}[0.8\textwidth]
  \bframe[] [negative]\}
  \ind \command{sectionpage}\}
  \eframe\}-\}
  \bframe[] [negative]\}
  \ind \command{subsectionpage}\}

```

```

\eframe
\end{codesnippet}\[1ex]
(this how the previous two slide were generated)
\end{frame}

\subsection{Custom intermission slides}

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

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

If you are a fan of graphic material in slideware, you can use a
\texttt{graphic} or \texttt{graphicfill} canvas in combination with
small snippets you put on the slide using\[1ex]
\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]\[1ex]
\ind\command{place} at (0.5,0.5) \{\command{untwerpenicon[scale=0.8]}\}\[1ex]
\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) {\untwerpenicon[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}
    \end{columns}

```

```

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

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

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

\vfill
\begin{block}{This is a block}
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ac
arcu est, vel posuere velit. In congue erat vel lorem ornare pretium.
\end{block}
\vfill
\begin{exampleblock}{This is an example block}
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ac
arcu est, vel posuere velit. In congue erat vel lorem ornare pretium.
\end{exampleblock}
\vfill
\begin{alertblock}{This is an alert block}
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ac
arcu est, vel posuere velit. In congue erat vel lorem ornare pretium.
\end{alertblock}
\vfill
\end{frame}
\section{Advanced material}

\begin{frame}[negative]
\sectionpage

```

```

\end{frame}

\begin{frame}[t]
  {Customizing the template}

  If you want to override logos/colors to create a template for your
  own research group or department:
  renew the commands below. The redefinitions must be put just after
  the \command{begin\{document\}} statement.\\
  The construction below allows you to put the stuff in a style file
  that you must load after (!) the \command{usetheme} command.\\[1ex]
  \begin{codesnippet}[0.95\textwidth]
    \command{AtBeginDocument\{}}\\
    \ind\command{renewcommand*}\command{logopos\{your-pos-logo-filename-here\}}\\
    \ind\command{renewcommand*}\command{logoneg\{your-negative-logo-filename-
here\}}\\
    \ind\command{renewcommand*}\command{logomonowhite\{your-mono-logo-filename-
here\}}\\
    \ind\command{renewcommand*}\command{iconfile\{your-icon-filename-here\}}\\
    \ind\command{colorlet\{maincolor\}\{your-favorite-color\}}\\
    \ind\command{colorlet\{sidecolor\}\{your-secondfavorite-color\}}\\
    \ind\command{colorlet\{basecolor\}\{some-solid-color\}}\\
  \}
  \end{codesnippet}~\\[1ex]
\end{frame}

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

  Dear user,

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

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

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

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

  Cheers!

  Walter Daems\\
  (April 2022)
\end{frame}

```



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

7.2 Implementation

7.2.1 Main beamer theme

```
2363 (*bmr)  
2364 %      Copyright 2022 by Walter Daems <walter.daems@uantwerpen.be>  
2365 %  
2366 %      This file may be distributed and/or modified  
2367 %  
2368 %      1. under the LaTeX Project Public License and/or  
2369 %      2. under the GNU Public License.  
2370 %  
2371 %      See the file doc/licenses/LICENSE for more details.  
2372  
2373 \newif\if@nofonts  
2374 \@nofontsfalse  
2375 \DeclareOption{nofonts}{\@nofontstrue}  
2376  
2377 \input{uantwerpencommonoptions.clo}  
2378  
2379 \ProcessOptions  
2380  
2381 \RequirePackage{uantwerpencolorlogoscheme}  
2382  
2383 \AtBeginDocument{  
2384   \def\appropriatelogo{\logopos}  
2385   \def\appropriateslidenumber{%  
2386     \usebeamercolor{pageno in head/foot}%  
2387     \insertframenumber/\inserttotalframenumber}%  
2388 }  
2389  
2390 \mode<presentation>  
2391  
2392 \RequirePackage{tikz}  
2393 \RequirePackage{graphicx}  
2394 \RequirePackage[export]{adjustbox}  
2395 \RequirePackage{environ}  
2396  
2397 \setbeamersize{  
2398   text margin left=.8cm,  
2399   text margin right=.8cm  
2400 }  
2401  
2402 \usecolortheme{uantwerpen}  
2403 \usefonttheme{uantwerpen}  
2404 \useinnertheme{uantwerpen}  
2405 \useoutertheme{uantwerpen}  
2406
```

```

2407 \setbeamertheme{navigation symbols}{}
2408 \setbeamertheme{blocks}[rounded][shadow=true]
2409
2410 \mode
2411 <all>
2412 \bmr

```

7.2.2 Beamer color theme

```

2413 (*bmrcolor)
2414 %      Copyright 2022 by Walter Daems <walter.daems@uantwerpen.be>
2415 %
2416 %      This file may be distributed and/or modified
2417 %
2418 %      1. under the LaTeX Project Public License and/or
2419 %      2. under the GNU Public License.
2420 %
2421 %      See the file doc/licenses/LICENSE for more details.
2422
2423 \mode<presentation>
2424
2425 \RequirePackage{uantwerpencolorlogoscheme}
2426
2427 %% define main color
2428 \setbeamercolor{palette primary}{fg=maincolor}
2429 \setbeamercolor{palette secondary}{fg=sidecolor}
2430 \setbeamercolor{palette tertiary}{fg=uauaside}
2431 \setbeamercolor{palette quaternary}{fg=uauamain}
2432
2433 \setbeamercolor{normal text}{fg=basecolor}
2434 \setbeamercolor{inverse normal text}{fg=white!95!maincolor}
2435 \setbeamercolor{alerted text}{fg=uauamain}
2436 \setbeamercolor{example text}{}
2437
2438 \setbeamercolor{heading}{fg=basecolor}
2439 \setbeamercolor{subheading}{fg=basecolor}
2440 \setbeamercolor{inverse heading}{fg=white}
2441 \setbeamercolor{inverse subheading}{fg=white!75!maincolor}
2442
2443 \setbeamercolor{block body}{bg=black!4}
2444 \setbeamercolor{block title}{bg=black!8,fg=maincolor}
2445 \setbeamercolor{block body example}{bg=black!4}
2446 \setbeamercolor{block title example}{bg=black!8}
2447 \setbeamercolor{block body alerted}{bg=black!4}
2448 \setbeamercolor{block title alerted}{bg=black!8}
2449
2450 \setbeamercolor{itemize item}{parent=normal text}
2451 \setbeamercolor{enumerate item}{parent=normal text}
2452 \setbeamercolor{itemize subitem}{parent=normal text}
2453 \setbeamercolor{enumerate subitem}{parent=normal text}
2454 \setbeamercolor{itemize subsubitem}{parent=normal text}
2455 \setbeamercolor{enumerate subsubitem}{parent=normal text}
2456
2457 \setbeamercolor{frametitle}{fg=maincolor}

```

```

2458 \setbeamercolor{framesubtitle}{fg=sidecolor}
2459 \setbeamercolor{inverse frametitle}{fg=white}
2460 \setbeamercolor{inverse framesubtitle}{fg=white!80!maincolor}
2461
2462 \setbeamercolor{title in title page}{fg=maincolor}
2463 \setbeamercolor{subtitle in title page}{fg=sidecolor}
2464 \setbeamercolor{author in title page}{fg=maincolor}
2465 \setbeamercolor{date in title page}{fg=sidecolor}
2466 \setbeamercolor{inverse title in title page}{fg=white}
2467 \setbeamercolor{inverse subtitle in title page}{fg=white!75!maincolor}
2468 \setbeamercolor{inverse author in title page}{fg=white}
2469 \setbeamercolor{inverse date in title page}{fg=white!75!maincolor}
2470
2471 \setbeamercolor{pageno in head/foot}{fg=basecolor}
2472 \setbeamercolor{inverse pageno in head/foot}{fg=white}
2473
2474 \setbeamercolor{section in toc}{fg=basecolor}
2475 \setbeamercolor{subsection in toc}{fg=basecolor}
2476 \setbeamercolor{section number projected}{fg=white,bg=basecolor}
2477 \setbeamercolor{subsection number projected}{fg=white,bg=basecolor}
2478
2479 \setbeamercolor{section title}{fg=maincolor}
2480 \setbeamercolor{section name}{fg=maincolor}
2481 \setbeamercolor{inverse section title}{fg=white}
2482 \setbeamercolor{inverse section name}{fg=white}
2483
2484 \setbeamercolor{subsection title}{fg=sidecolor}
2485 \setbeamercolor{subsection name}{fg=sidecolor}
2486 \setbeamercolor{inverse subsection title}{fg=white!75!maincolor}
2487 \setbeamercolor{inverse subsection name}{fg=white!75!maincolor}
2488 \mode
2489 <all>
2490 </bmrcolor>

```

7.2.3 Beamer font theme

```

2491 (*bmrfont)
2492 %      Copyright 2022 by Walter Daems
2493 %
2494 %      This file may be distributed and/or modified
2495 %
2496 %      1. under the LaTeX Project Public License and/or
2497 %      2. under the GNU Public License.
2498 %
2499 %      See the file doc/licenses/LICENSE for more details.
2500
2501 \usetikzlibrary{calc}
2502
2503 \if@nofonts
2504 \else
2505 \RequirePackage{iftex}
2506 % Uncomment the following line if in MiKTeX you get the error
2507 % message that \ifluatex is already defined.
2508 % You first option is to update all your packages both in user as in

```

```

2509 % admin mode to fix your setup.
2510 % Your second option is to avoid the warning uncommenting the
2511 % following line:
2512 % \let\ifluatex\relax
2513 \iftutex
2514   \usepackage{cmbright}
2515   \usefonttheme{serif}
2516   \usepackage{fontspec}
2517   \setmainfont{Calibri}
2518   \usepackage{sansmathaccent}
2519 \fi
2520 \fi
2521 \usepackage{bm}
2522
2523 \mode<presentation>
2524
2525 \setbeamerfont{normal text}{} % ignored currently
2526 \setbeamerfont{alerted text}{}
2527 \setbeamerfont{example text}{}
2528
2529 \setbeamerfont{structure}{}
2530 \setbeamerfont{tiny structure}{size=\tiny}
2531
2532 \setbeamerfont{title}{size=\large,parent=structure}
2533 \setbeamerfont{title in head/footer}{}
2534 \setbeamerfont{title in sidebar}{size=\tiny}
2535
2536 \setbeamerfont{pageno in head/footer}{size=\tiny}
2537
2538 \setbeamerfont{subtitle}{size=\small,parent=title}
2539
2540 \setbeamerfont{author}{}
2541 \setbeamerfont{author in head/footer}{}
2542 \setbeamerfont{author in sidebar}{size=\tiny}
2543
2544 \setbeamerfont{date}{}
2545 \setbeamerfont{date in head/footer}{}
2546 \setbeamerfont{date in sidebar}{}
2547
2548 \setbeamerfont{part name}{size=\LARGE}
2549 \setbeamerfont{part title}{size=\LARGE,parent=title}
2550
2551 \setbeamerfont{section name}{size=\Large}
2552 \setbeamerfont{section title}{size=\Large,parent=title}
2553
2554 \setbeamerfont{section in toc}{parent=structure}
2555 \setbeamerfont{section in toc shaded}{parent=section in toc}
2556 \setbeamerfont{section in head/footer}{}
2557 \setbeamerfont{section in sidebar}{size=\tiny}
2558 \setbeamerfont{section number projected}
2559   {size=\small,parent={section in toc,projected text}}
2560
2561 \setbeamerfont{subsection name}{size=\large}
2562 \setbeamerfont{subsection title}{size=\large,parent=title}

```

2563
2564 \setbeamerfont{subsection in toc}{}
2565 \setbeamerfont{subsection in toc shaded}{parent=subsection in toc}
2566 \setbeamerfont{subsection in head/foot}{}
2567 \setbeamerfont{subsection in sidebar}{}
2568
2569 \setbeamerfont{subsubsection in toc}{size=\footnotesize}
2570 \setbeamerfont{subsubsection in toc shaded}{parent=subsubsection in toc}
2571 \setbeamerfont{subsubsection in head/foot}{}
2572 \setbeamerfont{subsubsection in sidebar}{}
2573
2574 \setbeamerfont{headline}{parent={tiny structure}}
2575 \setbeamerfont{footline}{parent={tiny structure}}
2576
2577 \setbeamerfont{frametitle}
2578 {parent=structure,size=\renewcommand*{\baselinestretch}{0.85}\LARGE\bfseries}
2579 \setbeamerfont{framesubtitle}{parent=frametitle,size=\normalsize\bfseries}
2580
2581 \setbeamerfont{caption}{size=\small}
2582 \setbeamerfont{caption name}{parent={structure,caption}}
2583
2584 \setbeamerfont{button}{size=\tiny}
2585
2586 \setbeamerfont{block body}{size=\scriptsize}
2587 \setbeamerfont{block body alerted}{parent={block body}}
2588 \setbeamerfont{block body example}{parent={block body}}
2589 \setbeamerfont{block title}{size=\small,series=\bfseries,parent={structure,block body}}
2590 \setbeamerfont{block title alerted}{parent={block title,alerted text}}
2591 \setbeamerfont{block title example}{parent={block title,example text}}
2592
2593 \setbeamerfont{item}{parent=structure}
2594 \setbeamerfont{subitem}{parent=item}
2595 \setbeamerfont{subsubitem}{parent=subitem}
2596
2597 \setbeamerfont{item projected}{size=\tiny,parent={item,projected text}}
2598 \setbeamerfont{subitem projected}{parent=item projected}
2599 \setbeamerfont{subsubitem projected}{parent=subitem projected}
2600
2601 \setbeamerfont{itemize item}{parent=item}
2602 \setbeamerfont{itemize subitem}{parent=subitem}
2603 \setbeamerfont{itemize subsubitem}{parent=subsubitem}
2604
2605 \setbeamerfont{enumerate item}{parent=item}
2606 \setbeamerfont{enumerate subitem}{parent=subitem}
2607 \setbeamerfont{enumerate subsubitem}{parent=subsubitem}
2608
2609 \setbeamerfont{itemize/enumerate body}{}
2610 \setbeamerfont{itemize/enumerate subbody}{size=\small}
2611 \setbeamerfont{itemize/enumerate subsubbody}{size=\footnotesize}
2612
2613 \setbeamerfont{description item}{parent=item}
2614
2615 \setbeamerfont{projected text}{parent={tiny structure}}
2616

```

2617 \setbeamerfont{abstract}{size=\small}
2618 \setbeamerfont{abstract title}{parent={abstract,structure},size=\normalsize}
2619
2620 \setbeamerfont{verse}{family=\rmfamily,shape=\itshape}
2621
2622 \setbeamerfont{quotation}{shape=\itshape}
2623 \setbeamerfont{quote}{parent=quotation}
2624
2625 \setbeamerfont{note page}{size=\small}
2626
2627 \mode
2628 <all>
2629 </bmrfont>

```

7.2.4 Beamer inner theme

```

2630 (*bmrinner)
2631 % Copyright 2022 by Walter Daems <walter.daems@uantwerpen.be>
2632 %
2633 % This file may be distributed and/or modified
2634 %
2635 % 1. under the LaTeX Project Public License and/or
2636 % 2. under the GNU Public License.
2637 %
2638 % See the file doc/licenses/LICENSE for more details.
2639
2640 \mode<presentation>
2641
2642 \setlength\parskip{0.5\baselineskip}
2643 \setlength\parindent{0em}
2644
2645 % use square (can also be circle or ball
2646 \setbeamerfont{sections/subsections in toc}[square]
2647 \setbeamerfont{itemize items}[square]
2648
2649 %\setbeamerfont{description item}[align left]
2650
2651 \newif\if@noround
2652 \@noroundfalse
2653
2654 \newcommand*\uantwerpenleftshape[3] []{
2655   \newcommand\myradius{0.05*(\getlength{\paperheight}-1.6)}%
2656   \coordinate (bl) at #2;
2657   \coordinate (tr) at #3;
2658   \if@noround
2659     \path[#1] (bl) rectangle (tr);
2660   \else
2661     \path[#1] (bl|-tr) -- (tr) -- (bl|-tr) -- ($ (bl)+(\myradius,0)$)
2662     arc(-90:-180:\myradius) -- cycle;
2663   \fi
2664 }
2665 \newcommand*\uantwerpenrightshape[3] []{
2666   \newcommand\myradius{0.05*(\getlength{\paperheight}-1.6)}%
2667   \coordinate (bl) at #2;

```

```

2668 \coordinate (tr) at #3;
2669 \if@noround
2670 \path[#1] (bl) rectangle (tr);
2671 \else
2672 \path[#1] (bl|-tr) -- (tr) -- ($ (bl|-tr)+(0,{\myradius})$)
2673 arc(0:-90:{\myradius}) -- (bl) -- cycle;
2674 \fi
2675 }
2676
2677 \newcommand*\darken[2][0.5]{%
2678 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2679 \node (a) {#2};
2680 \fill[fill=black,opacity=#1] (a.south west) rectangle (a.north east);
2681 \end{tikzpicture}
2682 }
2683
2684 \newcommand\uantwerpencallout[4][]{
2685 \begin{tikzpicture}
2686 \uantwerpenleftshape[fill=black,fill opacity=0.0,text opacity=1,text=white,#1]{( {-
2687 #2/2},-{\#3/2})}{( {\#2/2},{\#3/2})}
2688 \node[align=left,anchor=center] at (0,0) { \callout\ #4 };
2689 \end{tikzpicture}
2690 }
2691 \newcommand\callout[1][scale=0.70711]{
2692 \begin{tikzpicture}[#1]
2693 \fill[maincolor] (0.4,0) -- (0.5,0) -- (0.75,-0.15) -- (0.75,0) --
2694 (0.9,0) arc(-90:0:0.1) -- (1,0.65) arc(0:90:0.1) -- (0.1,0.75) arc
2695 (90:180:0.1) -- (0,0.1) arc(-180:-90:0.1) -- cycle;
2696 \foreach \x in {0.35,0.7} {
2697 \begin{scope}[shift={(\x,0.425)},scale=0.25]
2698 \fill[white] (0,0) circle[radius=0.5];
2699 \fill[white] (0.5,0) arc(0:-90:1) --
2700 (-0.5,-0.725) arc(-90:0:0.725) -- cycle;
2701 \end{scope}
2702 }
2703 \end{tikzpicture}
2704 }
2705
2706 \newcommand*\uantwerpenicon[1][scale=1]{
2707 \includegraphics[#1]{\iconfile}
2708 }
2709
2710 \newcommand\heading[1]{\par{\usebeamercolor{\maybeinverse heading}\color{fg}{\small\bfseries #
2711 \newcommand\subheading[1]{\par{
2712 \usebeamercolor{\maybeinverse
2713 subheading}\color{fg}{\footnotesize\it\bfseries #1~}}}
2714
2715 \mode
2716 <all>
2717 </bmrinner>

```

7.2.5 Beamer outer theme

```

2718 (*bmrouter)
2719 % Copyright 2022 by Walter Daems <walter.daems@uantwerpen.be>
2720 %
2721 % This file may be distributed and/or modified
2722 %
2723 % 1. under the LaTeX Project Public License and/or
2724 % 2. under the GNU Public License.
2725 %
2726 % See the file doc/licenses/LICENSE for more details.
2727
2728 \mode<presentation>
2729
2730 \newcommand*\getlength[1]{\strip@pt#1/28.45274}
2731 \newcommand*\pw{\getlength{\paperwidth}}%
2732 \newcommand*\ph{\getlength{\paperheight}}%
2733
2734 \newif\if@rhtext
2735 \@rhtextfalse
2736 \newif\if@lhtext
2737 \@lhtextfalse
2738 \newif\if@rqttext
2739 \@rqttextfalse
2740 \newif\if@lqttext
2741 \@lqttextfalse
2742 \newif\if@bhtext
2743 \@bhtextfalse
2744 \gdef\maybeinverse{}
2745
2746 \define@key{beamerframe}{noround}[true]{
2747   \expandafter\csname @noround#1\endcsname
2748 }
2749
2750 \define@key{beamerframe}{normal}[true]{
2751   \setbeamertemplate{title page}[main]
2752   \setbeamertemplate{section page}[main]%
2753   \setbeamertemplate{subsection page}[main]%
2754   \setbeamertemplate{background canvas}[normal]
2755   \gdef\maybeinverse{}
2756 }
2757
2758 \mode<handout|trans>
2759
2760 \define@key{beamerframe}{negativefill}[true]{
2761 }
2762
2763 \define@key{beamerframe}{negative}[true]{
2764 }
2765
2766 \mode
2767 <all>
2768
2769 \mode<beamer|second>
2770
2771 \define@key{beamerframe}{negativefill}[true]{

```



```

2772 \gdef\maybeinverse{inverse }%
2773 \usebeamercolor[fg]{\maybeinverse normal text}%
2774 \setbeamertemplate{title page}[negativefill]
2775 \setbeamertemplate{section page}[negative]%
2776 \setbeamertemplate{subsection page}[negative]%
2777 \setbeamertemplate{background canvas}[negativefill]%
2778 }
2779
2780 \define@key{beamerframe}{negative}[true]{
2781 \gdef\maybeinverse{inverse }%
2782 \usebeamercolor[fg]{\maybeinverse normal text}%
2783 \setbeamertemplate{title page}[negative]
2784 \setbeamertemplate{section page}[negative]%
2785 \setbeamertemplate{subsection page}[negative]%
2786 \setbeamertemplate{background canvas}[negative]%
2787 }
2788
2789 \mode
2790 <all>
2791
2792 \define@key{beamerframe}{graphicfill}[{\includegraphics[scale=0.1,min
2793 width=\paperwidth,min height=\paperheight]{Images/uantwerpen-01.jpg}}]{
2794 \gdef\maybeinverse{inverse }%
2795 \usebeamercolor[fg]{\maybeinverse normal text}%
2796 \setbeamertemplate{background canvas}[graphicfill]{#1}
2797 }
2798
2799 \define@key{beamerframe}{graphic}[{\includegraphics[scale=0.1,min
2800 width=\textwidth,min height=\textheight]{Images/uantwerpen-02.jpg}}]{
2801 \gdef\maybeinverse{inverse }%
2802 \usebeamercolor[fg]{\maybeinverse normal text}%
2803 \setbeamertemplate{background canvas}[graphic]{#1}
2804 }
2805
2806 \define@key{beamerframe}{lhgraphic}
2807 [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2808 height=\textheight]{Images/uantwerpen-03.jpg}}]{
2809 \gdef\maybeinverse{}%
2810 \setbeamertemplate{background canvas}[lhgraphic]{#1}
2811 \@rhtexttrue
2812 }
2813
2814 \define@key{beamerframe}{lqgraphic}
2815 [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2816 height=\textheight]{Images/uantwerpen-04.jpg}}]{
2817 \gdef\maybeinverse{}%
2818 \setbeamertemplate{background canvas}[lqgraphic]{#1}
2819 \@rqttexttrue
2820 }
2821
2822 \define@key{beamerframe}{rhgraphic}
2823 [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2824 height=\textheight]{Images/uantwerpen-05.jpg}}]{
2825 \gdef\maybeinverse{}%

```

```

2826 \setbeamertemplate{background canvas}[rhgraphic]{#1}
2827 \@lhtexttrue
2828 }
2829
2830 \define@key{beamerframe}{rqgraphic}
2831 [ {\includegraphics[scale=0.5,min width=0.5\paperwidth,min
2832 height=\textheight]{Images/uantwerpen-05.jpg}} {
2833 \gdef\maybeinverse{}%
2834 \setbeamertemplate{background canvas}[rqgraphic]{#1}
2835 \@lqttexttrue
2836 }
2837
2838 \define@key{beamerframe}{thgraphic}
2839 [ {\includegraphics[scale=0.5,min width=\paperwidth,min
2840 height=0.5\textheight]{Images/uantwerpen-06.jpg}} {
2841 \gdef\maybeinverse{}%
2842 \setbeamertemplate{background canvas}[thgraphic]{#1}
2843 \@bhtexttrue
2844 }
2845
2846 \define@key{beamerframe}{bhgraphic}
2847 [ {\includegraphics[scale=0.5,min width=\paperwidth,min
2848 height=0.5\textheight]{Images/uantwerpen-07.jpg}} {
2849 \gdef\maybeinverse{}%
2850 \setbeamertemplate{background canvas}[bhgraphic]{#1}
2851 }
2852
2853 \BeforeBeginEnvironment{frame}{%
2854 \gdef\maybeinverse{}%
2855 \setbeamertemplate{title page}[main]%
2856 \setbeamertemplate{section page}[main]%
2857 \setbeamertemplate{subsection page}[main]%
2858 \setbeamertemplate{background canvas}[normal]%
2859 \usebeamercolor[fg]{normal text}%
2860 }
2861
2862 % The following does not work as \end{frame} is never executed by
2863 % beamer!
2864 % \AtEndEnvironment{frame}{\gdef\maybeinverse{}}
2865
2866 \NewEnviron{rhframe}[3] [] {%
2867 \begin{frame}[#1]{#2}{#3}
2868 \begin{minipage}[t]{0.525\textwidth}
2869 ~
2870 \end{minipage}
2871 \begin{minipage}[t]{0.465\textwidth}
2872 \BODY
2873 \end{minipage}
2874 \end{frame}
2875 }
2876
2877 \NewEnviron{r3qframe}[3] [] {%
2878 \begin{frame}[#1]{#2}{#3}
2879 \begin{minipage}[t]{0.23\textwidth}

```

```

2880     ~
2881     \end{minipage}
2882     \begin{minipage}[t]{0.76\textwidth}
2883         \BODY
2884     \end{minipage}
2885 \end{frame}
2886 }
2887
2888 \NewEnviron{lhframe}[3] []{%
2889     \begin{frame}[#1]{#2}-#3}
2890     \begin{minipage}[t]{0.465\textwidth}
2891         \BODY
2892     \end{minipage}
2893     \begin{minipage}[t]{0.525\textwidth}
2894         ~
2895     \end{minipage}
2896 \end{frame}
2897 }
2898
2899 \NewEnviron{l3qframe}[3] []{%
2900     \begin{frame}[#1]{#2}-#3}
2901     \begin{minipage}[t]{0.77\textwidth}
2902         \BODY
2903     \end{minipage}
2904     \begin{minipage}[t]{0.22\textwidth}
2905         ~
2906     \end{minipage}
2907 \end{frame}
2908 }
2909
2910 \NewEnviron{bhframe}[3] []{%
2911     \begin{frame}[#1]{#2}-#3}
2912         \BODY
2913     \end{frame}
2914 }
2915
2916 \NewEnviron{thframe}[3] []{%
2917     \begin{frame}[#1]{#2}-#3}
2918         \BODY
2919     \end{frame}
2920 }
2921
2922 %%%
2923 % Order:
2924 % 1. option is executed
2925 % 2. frametitle is typeset
2926 % 3. canvas is typeset
2927 % 4. frame is typeset
2928 %%%
2929
2930 \def\ps@uantwerpen@titlepage{%
2931     \setbeamercolor{title in title page}{parent=palette primary}
2932     \setbeamertemplate{footline}[empty]
2933     \@nameuse{ps@uantwerpen}

```

```

2934 }
2935
2936 \defbeamertemplate*{background canvas}{negativefill}[1]
2937 {%
2938   \gdef\appropriatelogo{\logomonowhite}%
2939   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2940     \insertframenummer/\inserttotalframenummer}%
2941   \color{maincolor}\vrule width\paperwidth height\paperheight
2942 }
2943
2944 \defbeamertemplate*{background canvas}{negative}[1]
2945 {%
2946   \gdef\appropriatelogo{\logopos}%
2947   \gdef\appropriateslidenumber{}%
2948   \begin{tikzpicture}
2949     \clip (0,0) rectangle (\pw,\ph);
2950     \uantwerpenleftshape[fill=maincolor]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
2951   \end{tikzpicture}
2952 }
2953
2954 \defbeamertemplate*{background canvas}{graphicfill}[1]
2955 {%
2956   \gdef\appropriatelogo{\logoneg}%
2957   \gdef\appropriateslidenumber{}%
2958   \begin{tikzpicture}
2959     \clip (0,0) rectangle (\pw,\ph);
2960     \node[align=center] at (0.5*\pw,0.5*\ph) {#1};
2961   \end{tikzpicture}%
2962 }
2963
2964 \defbeamertemplate*{background canvas}{graphic}[1]
2965 {%
2966   \gdef\appropriatelogo{\logopos}%
2967   \gdef\appropriateslidenumber{}%
2968   \begin{tikzpicture}
2969     \clip (0,0) rectangle (\pw,\ph);
2970     \begin{scope}
2971       \uantwerpenleftshape[clip]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
2972       \node[align=center] at (0.5*\pw,0.5*\ph) {#1};
2973     \end{scope}
2974   \end{tikzpicture}%
2975 }
2976
2977 \defbeamertemplate*{background canvas}{lhgraphic}[1]
2978 {%
2979   \gdef\maybeinverse{}%
2980   \gdef\appropriatelogo{\logopos}%
2981   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2982     \insertframenummer/\inserttotalframenummer}%
2983   \pgfmathsetmacro\dx{0.5*\pw-1.2}%
2984   \pgfmathsetmacro\dy{\ph-1.6}%
2985   \begin{tikzpicture}
2986     \clip (0,0) rectangle (\pw,\ph);
2987     \begin{scope}

```

```

2988     \uantwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
2989     \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
2990   \end{scope}
2991 \end{tikzpicture}
2992 \@tempswatrue
2993 }
2994
2995 \defbeamertemplate*{background canvas}{lqgraphic}[1]
2996 {%
2997   \gdef\maybeinverse{}%
2998   \gdef\appropriatelogo{\logopos}%
2999   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3000     \insertframenummer/\inserttotalframenummer}%
3001   \pgfmathsetmacro\dx{0.25*\pw-1.2}%
3002   \pgfmathsetmacro\dy{\ph-1.6}%
3003   \begin{tikzpicture}
3004     \clip (0,0) rectangle (\pw,\ph);
3005     \begin{scope}
3006       \uantwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
3007       \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy)
3008         {#1};
3009     \end{scope}
3010   \end{tikzpicture}
3011   \@tempswatrue
3012 }
3013
3014 \defbeamertemplate*{background canvas}{rhgraphic}[1]
3015 {%
3016   \gdef\maybeinverse{}%
3017   \gdef\appropriatelogo{\logopos}%
3018   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3019     \insertframenummer/\inserttotalframenummer}%
3020   \pgfmathsetmacro\dx{0.5*\pw-1.2}%
3021   \pgfmathsetmacro\dy{\ph-1.6}%
3022   \begin{tikzpicture}
3023     \clip (0,0) rectangle (\pw,\ph);
3024     \begin{scope}[shift={(0.5*\pw,0)}]
3025       \uantwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
3026       \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3027     \end{scope}
3028   \end{tikzpicture}
3029   \@tempswatrue
3030 }
3031
3032 \defbeamertemplate*{background canvas}{rqgraphic}[1]
3033 {%
3034   \gdef\maybeinverse{}%
3035   \gdef\appropriatelogo{\logopos}%
3036   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3037     \insertframenummer/\inserttotalframenummer}%
3038   \pgfmathsetmacro\dx{0.25*\pw-1.2}%
3039   \pgfmathsetmacro\dy{\ph-1.6}%
3040   \begin{tikzpicture}
3041     \clip (0,0) rectangle (\pw,\ph);

```

```

3042 \begin{scope}[shift={(0.75*\pw,0)}]
3043 \untwerpenrightshape[clip]{{(0.4,0.8)}}{(0.4+\dx,0.8+\dy)}
3044 \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3045 \end{scope}
3046 \end{tikzpicture}
3047 \@tempwattrue
3048 }
3049
3050 \defbeamertemplate*{background canvas}{thgraphic}[1]
3051 {%
3052 \gdef\maybeinverse{}%
3053 \gdef\appropriatelogo{\logopos}%
3054 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}}%
3055 \insertframenummer/\inserttotalframenummer}%
3056 \pgfmathsetmacro\dx{\pw-1.6}%
3057 \pgfmathsetmacro\dy{0.5*\ph-0.8}%
3058 \begin{tikzpicture}
3059 \clip (0,0) rectangle (\pw,\ph);
3060 \begin{scope}[shift={(0,0.5*\ph)}]
3061 \untwerpenleftshape[clip] {{(0.8,0)}}{(0.8+\dx,\dy)}
3062 \node[align=center] at (0.8+0.5*\dx,0.5*\dy) {#1};
3063 \end{scope}
3064 \end{tikzpicture}
3065 \@tempwattrue
3066 }
3067
3068 \defbeamertemplate*{background canvas}{bhgraphic}[1]
3069 {%
3070 \gdef\maybeinverse{}%
3071 \gdef\appropriatelogo{\logopos}%
3072 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}}%
3073 \insertframenummer/\inserttotalframenummer}%
3074 \pgfmathsetmacro\dx{\pw-1.6}%
3075 \pgfmathsetmacro\dy{0.5*\ph-0.8}%
3076 \begin{tikzpicture}
3077 \clip (0,0) rectangle (\pw,\ph);
3078 \begin{scope}[shift={(0,0.8)}]
3079 \untwerpenleftshape[clip] {{(0.8,0)}}{(0.8+\dx,\dy)}
3080 \node[align=center] at (0.8+0.5*\dx,0.5*\dy) {#1};
3081 \end{scope}
3082 \end{tikzpicture}
3083 \@tempwattrue
3084 }
3085
3086
3087 \defbeamertemplate*{background canvas}{normal}
3088 {%
3089 \gdef\maybeinverse{}%
3090 \gdef\appropriatelogo{\logopos}%
3091 \gdef\appropriateslidenumber{\usebeamercolor{pageno in
3092 head/foot}}\insertframenummer/\inserttotalframenummer}%
3093 }
3094
3095

```

```

3096 \defbeamertemplate*{title page}{main}[1] []
3097 {%
3098   \thispagestyle{uantwerpen@titlepage}%
3099   \begin{tikzpicture}
3100     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3101     \node[anchor=center] at (0.5*\textwidth,0.75*\ph)
3102     {\includegraphics[height=.9\logounitheight]{\logopos}};
3103     \node[
3104       text width=0.98\textwidth,
3105       text=basecolor,
3106       align=center] at (0.5*\textwidth,0.5*\ph) {
3107       \begin{beamercolorbox}[wd=\textwidth,center]{title in title page}
3108         \LARGE\bfseries\inserttitle\[\[1ex]
3109         \usebeamercolor[fg]{subtitle in title page}
3110         \color{fg}\large\bfseries\insertsubtitle
3111       \end{beamercolorbox}
3112     };
3113     \node[
3114       text width=0.98\textwidth,
3115       color=basecolor,
3116       align=center] at (0.5*\textwidth,0.25*\ph) {
3117       \begin{beamercolorbox}[wd=\textwidth,center]{author in title page}
3118         \large\bfseries\insertauthor
3119       \end{beamercolorbox}
3120     };
3121     \node[
3122       text width=0.98\textwidth,
3123       color=basecolor,
3124       align=center] at (0.5*\textwidth,0.15*\ph) {
3125       \begin{beamercolorbox}[wd=\textwidth,center]{date in title page}
3126         \normalsize\bfseries\insertdate
3127       \end{beamercolorbox}
3128     };
3129   \end{tikzpicture}
3130 }
3131
3132 \defbeamertemplate*{title page}{negative}[1] []
3133 {
3134   \begin{tikzpicture}
3135     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3136     \node[
3137       text width=0.98\textwidth,
3138       align=center] at (0.5*\textwidth,0.5*\ph) {
3139       \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
3140         \LARGE\bfseries\inserttitle\[\[1ex]
3141         \usebeamercolor[fg]{\maybeinverse subtitle in title page}
3142         \color{fg}\large\bfseries\insertsubtitle
3143       \end{beamercolorbox}
3144     };
3145     \node[
3146       text width=0.98\textwidth,
3147       align=center,] at (0.5*\textwidth,0.25*\ph) {
3148       \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
3149         \large\bfseries\insertauthor

```

```

3150     \end{beamercolorbox}
3151   };
3152   \node[
3153     text width=0.98\textwidth,
3154     color=basecolor,
3155     align=center] at (0.5*\textwidth,0.15*\ph) {
3156     \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
3157       \normalsize\bfseries\insertdate
3158     \end{beamercolorbox}
3159   };
3160 \end{tikzpicture}
3161 }
3162
3163 \defbeamertemplate*{title page}{negativefill}[1] []
3164 {
3165   \thispagestyle{uantwerpen@titlepage}
3166   \begin{tikzpicture}
3167     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3168     \node[anchor=center] at (0.5*\textwidth,0.75*\ph)
3169     {\includegraphics[height=.9\logounitheight]{\logomonowhite}};
3170     \node[
3171       draw,rectangle,
3172       text width=0.98\textwidth,
3173       color=maincolor,
3174       align=center] at (0.5*\textwidth,0.5*\ph) {
3175       \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
3176         \LARGE\bfseries\inserttitle\ [1ex]
3177         \usebeamercolor[fg]{inverse subtitle in title page}
3178         \color{fg}\large\bfseries\insertsubtitle
3179       \end{beamercolorbox}
3180     };
3181     \node[
3182       text width=0.98\textwidth,
3183       color=maincolor,
3184       align=center] at (0.5*\textwidth,0.25*\ph) {
3185       \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
3186         \large\bfseries\insertauthor
3187       \end{beamercolorbox}
3188     };
3189     \node[
3190       text width=0.98\textwidth,
3191       color=basecolor,
3192       align=center] at (0.5*\textwidth,0.15*\ph) {
3193       \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
3194         \normalsize\bfseries\insertdate
3195       \end{beamercolorbox}
3196     };
3197   \end{tikzpicture}
3198 }
3199
3200 \defbeamertemplate*{section page}{main}[1] []
3201 {%
3202   \begin{tikzpicture}
3203     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);

```



```

3204 \node[
3205 text width=0.98\textwidth,
3206 text=basecolor,
3207 align=center] at (0.5*\textwidth,0.55*\ph) {
3208 \begin{beamercolorbox}[wd=\textwidth,center]{section title}
3209 \Large\bfseries\insertsectionnumber.\~\insertsection
3210 \end{beamercolorbox}
3211 };
3212 \end{tikzpicture}
3213 }
3214
3215 \defbeamertemplate*{subsection page}{main}[1] []
3216 {%
3217 \begin{tikzpicture}
3218 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3219 \node[
3220 text width=0.98\textwidth,
3221 text=basecolor,
3222 align=center] at (0.5*\textwidth,0.55*\ph) {
3223 \begin{beamercolorbox}[wd=\textwidth,center]{section title}
3224 \Large\bfseries\insertsectionnumber.\~\insertsection
3225 \end{beamercolorbox}
3226 };
3227 \node[
3228 text width=0.98\textwidth,
3229 text=basecolor,
3230 align=center] at (0.5*\textwidth,0.45*\ph) {
3231 \begin{beamercolorbox}[wd=\textwidth,center]{subsection title}
3232 \large\bfseries\insertsubsection
3233 \end{beamercolorbox}
3234 };
3235 \end{tikzpicture}
3236 }
3237
3238 \defbeamertemplate*{section page}{negative}[1] []
3239 {
3240 \begin{tikzpicture}
3241 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3242 \node[
3243 text width=0.98\textwidth,
3244 text=basecolor,
3245 align=center] at (0.5*\textwidth,0.55*\ph) {
3246 \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
3247 \Large\bfseries\insertsectionnumber.\~\insertsection
3248 \end{beamercolorbox}
3249 };
3250 \end{tikzpicture}
3251 }
3252
3253 \defbeamertemplate*{subsection page}{negative}[1] []
3254 {
3255 \begin{tikzpicture}
3256 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3257 \node[

```

```

3258     text width=0.98\textwidth,
3259     text=basecolor,
3260     align=center] at (0.5*\textwidth,0.55*\ph) {
3261     \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
3262     \Large\bfseries\insertsectionnumber.\~\insertsection
3263     \end{beamercolorbox}
3264 };
3265 \node[
3266     text width=0.98\textwidth,
3267     text=basecolor,
3268     align=center] at (0.5*\textwidth,0.45*\ph) {
3269     \begin{beamercolorbox}[wd=\textwidth,center]{inverse subsection title}
3270     \large\bfseries\insertsubsection
3271     \end{beamercolorbox}
3272 };
3273 \end{tikzpicture}
3274 }
3275
3276 \defbeamertemplate*{footline}{empty}
3277 {
3278 }
3279
3280 \defbeamertemplate*{footline}{normal}
3281 {%
3282     \leavevmode%
3283     \hbox{\begin{beamercolorbox}
3284         [wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,left,leftskip=.8cm
3285         plus1fill]{author in head/foot}%
3286         \includegraphics[height=0.35\logounitheight]{\appropriatologo}
3287         \hskip0pt plus 1filll ~
3288     \end{beamercolorbox}}%
3289     \begin{beamercolorbox}[wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,
3290     right,rightskip=.8cm plus1fill]{\maybeinverse pageno in head/foot}%
3291     \usebeamerfont{pageno in head/foot}~\hskip0pt plus 1filll
3292     \appropriateslidenumber
3293     \end{beamercolorbox}}%
3294     \vskip0pt%
3295 }
3296
3297 \defbeamertemplate*{frametitle}{empty}
3298 {
3299 }
3300
3301 \defbeamertemplate*{frametitle}{normal}
3302 {%
3303     \vskip0.75cm%
3304     \if@rhtext%
3305         \@tempdima=0.5\textwidth%
3306         \@tempdimb=0.5\textwidth%
3307         \advance\@tempdima by0.5\beamer@leftmargin%
3308         \advance\@tempdimb by-0.5\beamer@leftmargin%
3309     \else%
3310         \if@rqtext%
3311         \@tempdima=0.23\textwidth%

```

```

3312 \@tempdimb=0.77\textwidth%
3313 \else%
3314 \if@lhtext%
3315 \@tempdima=0em%
3316 \@tempdimb=0.5\textwidth%
3317 \advance\@tempdimb by-0.5\beamer@leftmargin%
3318 \else%
3319 \if@lqttext%
3320 \@tempdima=0em%
3321 \@tempdimb=0.77\textwidth%
3322 \else%
3323 \if@bhtext%
3324 \@tempdima=0em%
3325 \@tempdimb=\textwidth%
3326 \vskip0.5\textheight%
3327 \else%
3328 \@tempdima=0em%
3329 \@tempdimb=\textwidth%
3330 \fi%
3331 \fi%
3332 \fi%
3333 \fi%
3334 \fi%
3335 \hskip\@tempdima%
3336 \begin{beamercolorbox}[wd=\@tempdimb]{\maybeinverse frametitle}%
3337 \usebeamerfont{frametitle}\insertframetitle\[\[0.5ex]%
3338 \ifx\insertframesubtitle\@empty%
3339 {\usebeamerfont{framesubtitle}%
3340 \usebeamercolor[fg]{\maybeinverse framesubtitle}~\strut\par}%
3341 \vskip-1ex%
3342 \else%
3343 {\usebeamerfont{framesubtitle}%
3344 \usebeamercolor[fg]{\maybeinverse framesubtitle}%
3345 \insertframesubtitle\strut\par}%
3346 \fi%
3347 \if@tempswa\else\vskip-.3cm\fi set inside beamercolorbox... evil here...
3348 \end{beamercolorbox}%
3349 }
3350
3351 \newdimen\xlopleft
3352 \newdimen\ylopleft
3353 \newdimen\xupright
3354 \newdimen\yupright
3355 \newdimen\xcurrent
3356 \newdimen\ycurrent
3357 \newcommand*{\extractlopleft[1]}{\path (#1);\pgfgetlastxy{\xlopleft}{\ylopleft};}
3358 \newcommand*{\extractupright[1]}{\path (#1);\pgfgetlastxy{\xupright}{\yupright};}
3359 \newcommand*{\extractcurrent[1]}{\path (#1);\pgfgetlastxy{\xcurrent}{\ycurrent};}
3360
3361 \DeclareRobustCommand\place{\@ifnextchar[{\@place}{\@place[align=left] }}
3362 \def\@place[#1] at (#2,#3)#4{
3363 \begin{tikzpicture}[overlay,remember picture]
3364 \extractlopleft{$(current page.south west)$}
3365 \extractupright{$(current page.north east)$}

```

```
3366 \node[#1] at
3367   ({\xloleft*(1-#2)+\xupright*#2},{\yloleft*(1-#3)+\yupright*#3}) {#4};
3368 \end{tikzpicture}
3369 }
3370
3371 \mode
3372 <all>
3373 </bmrouter>
```

Change History

| | | |
|------|--|--|
| v1.0 | General: Consolidated uacoursetext class and uamasterthesis class 1 | General: Added diploma codes for Faculty of Applied Economics . . 1 |
| | Added option qr 39 | Added diploma code documentation 11 |
| | Added option titlepagenoartwork 39 | v1.7 |
| | Added option titlepagetableonly 39 | <code>\maketitle</code> : Embedded babel translations of keywords into title page 70, 74 |
| v1.1 | <code>\diploma</code> : Fixed typo on programme's name (e-umlaut) 58 | General: Added babel translations of elements of master's thesis title page 1 |
| | General: Small bugfixes and 'filled' option 1 | Added babel tags of elements of master's thesis title page 45 |
| | Added option user documentation 8 | v1.8 |
| | Made raggedright conditional on option 'filled', because it can't be undone 68 | <code>\makefinalpage</code> : Inserted blank one but last page 73 |
| v1.2 | General: Added lmodern package and increased headheight to 13.7pt to please Fancyhdr 1 | <code>\maketitle</code> : Allowed for empty senderrole 82 |
| | Added lmodern package to please MikTeX 41 | <code>\signature</code> : Added signature . . . 63 |
| | Increased headheight to please Fancyhdr 68 | General: Corrected minor typographic mistakes, added signature and solved problems with shell escape 1 |
| v1.3 | <code>\makefinalpage</code> : Changed eso-pic for tikz 73, 75 | Added missing packages ifmtarg and shellesc 42 |
| | <code>\maketitle</code> : Changed eso-pic for tikz 74 | Allowed for empty senderrole . . 83 |
| | General: Minor bugfixes, abandonment of a few packages, font freedom 1 | v1.81 |
| | Abandoned use of cmbright - no more font dictatorship for theses and courses 41 | General: Bugfixes for release v1.8 . 1 |
| | Added inclusion of background package 42 | Apparently shellesc is still missing from quite a number of installations, therefore, conditional loading 42 |
| v1.4 | General: Implemented uantwerpenletter class 1 | v1.9 |
| | Implemented letter class 39 | General: Integrated uantwerpenexam class into package 1 |
| v1.5 | <code>\maketitle</code> : Implemented new footer 82 | Added etoolbox for convenience reasons 42 |
| | General: Replaced bottom arcs in footer of letter by official PDF versions 1 | Implemented uantwerpenexam class 39 |
| v1.6 | <code>\diploma</code> : Added diploma codes . . 58 | v2.0 |
| | | <code>\makefinalpage</code> : Implemented final page 79, 81 |
| | | <code>\maketitle</code> : Implemented title page 76 |
| | | General: Implemented uantwerpenphdthesis class into package 1 |
| | | Implemented uantwerpenphdthesis class . . . 39 |

| | | | |
|--|----|---|----|
| Removed package ifmtarg because unreliable | 42 | General: Added option for diploma without specialization for EM | 1 |
| Updated diploma code documentation to incorporate PhD degrees | 11 | v2.5 <code>\depot</code> : Made the specification of a depot number optional | 59 |
| v2.1 <code>\engdut</code> : Increased intercolumn spacing for engdut | 86 | <code>\insertsolutionspagepartial</code> : Corrected for 'one page too early' in solutionspagepartial | 88 |
| <code>\extrainfo</code> : Changed default to empty | 65 | <code>\maketitle</code> : Corrected formatting in case of absent ISBN or depot number | 76 |
| <code>\maketitle</code> : Corrected information page (p4) jury spacing | 76 | <code>\programme</code> : Shortened 'voorbereidingsprogramma' and 'schakelprogramma' tags | 57 |
| <code>\subtitle</code> : Added subtitle to phd text | 51 | <code>\publisher</code> : changed publisher to universitas in default | 52 |
| Ensured that subtitle is really optional by adding default space value | 51 | General: changed publisher to universitas in example | 17 |
| General: Bugfix release after promotion event on research day | 1 | v3.0 <code>\facultyacronym</code> : Changed REC in RE, TEW in BE and WET in WE (according to official naming scheme) | 50 |
| Added appropriate <code>\appendix</code> command | 69 | General: Adapted to the new house style of UAntwerpen and added a beamer template | 1 |
| Allow for setting the multiple choice mark symbol | 87 | Added iftex | 42 |
| Corrected erroneous line breaking | 87 | v3.1 General: Renamed generic images to be unique for TexLive distribution | 1 |
| Corrected spacing in title + exampart | 83 | v3.2 General: Small bugfixes (e.g., frame numbering instead of page numbering) | 1 |
| v2.2 General: Improved visibility of chapter numbers by adding a white outline | 1 | v4.0 <code>\diploma</code> : Discontinued: removed all diploma codes | 58 |
| Added white chapter number outline | 69 | <code>\facultyacronym</code> : This function is now obsolete | 50 |
| Corrected spacing | 69 | General: Last update of house style (phdthesis coursetext and bamathesis), added uantwerpenreport class, improvements based on use feedback and major rework to benefit from expl3, removed all diploma codes to ease maintainability | 1 |
| v2.3 <code>\diploma</code> : Added diploma level | 58 | Removed diploma codes, as too many faculties are requesting to maintain them | 11 |
| <code>\extrainfo</code> : The command <code>\extrainfo</code> now allows for an extra (optional) first argument 'firstpage' | 65 | Removed option qr again | 39 |
| General: Reworked masterthesis to bamathesis and minor bug fixes | 1 | | |
| 2019/03/27 | 83 | | |
| Added boxes to fill out name and docket number | 83 | | |
| Introduced bachelor level codes to allow for bachelor theses | 11 | | |
| v2.4 <code>\diploma</code> : Added code for Master EM without specialization | 58 | | |

| | | | |
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| Removed options | | Now using scrbook for | |
| titlepagetableonly and | | bamathesis, with colored | |
| titlepagenoartwork | 39 | chapter and section titles | 70 |
| Total rewrite of this part based | | v4.3 | |
| on expl3 | 45 | General: Small bugfixes and | |
| v4.1 | | corrections to optional fields of | |
| General: Adapted coursetext | | letter class | 1 |
| again to universitas agreement | | v4.4 | |
| + added bleed version for phd | | \department : Added department | |
| texts + small bugfixes | 1 | name | 50 |
| Added cameraready option . . . | 44 | \subtitel : Added dutch | |
| Added option cameraready . . . | 39 | translation option to phdtext | |
| v4.2 | | class | 51 |
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| Added bachelor/master degrees | | General: Made titlepages | |
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| Added highlighting facilities . . | 43 | Added some suggestions for a | |
| Added some fancy inset texts | | two column summary of a | |
| and quotes | 43 | bamathesis | 19 |

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