

The `uantwerpendocs` classes^{*†}

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2021/11/11

1 Introduction

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

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

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

2 Synopsis

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

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

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

^{*}This document corresponds to `uantwerpendocs` 4.3, dated 2021/11/11.

[†]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 `uantwerpen-docs` package will be slowly refactored to $\LaTeX 3$ to prepare for a package that is easier to maintain. However, the $\LaTeX 3$ 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>}
\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).
- 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 report: `twoside`, `openright` and (optionally) `filled`

5.3 The macros explained

5.3.1 Macros for the coursetext, bamathesis, phdthesis classes

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

argument	
<code>nl-ba</code>	Bachelorproef
<code>nl-ma</code>	Masterproef
<code>nl-pr</code>	Projectverslag
<code>en-ba</code>	Bachelor’s thesis
<code>en-ma</code>	Master’s thesis
<code>en-pr</code>	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: bio-chemie
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.

`\publishercode` [coursetext] (mandatory)

This macro sets the publisher code of the document. It is printed on the front page. This is code that the publisher uses for its internal administration. It may be a proprietary code, or an ISBN number.

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

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

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

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

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

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

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

5.3.2 Macros for the letter class

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

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

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

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

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

- first argument: user name

- second argument: domain name

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

<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 <p>Newlines are not allowed in the arguments.</p>
<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.

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

`\unit` [letter] (optional)
Name of the unit to which the person belongs. This can be a research group, a laboratory, an administrative division, etc. Newlines are allowed.

5.3.3 Macros for the exam class

`\author` [exam] (mandatory)
The author of the exam (may be multiple authors, separated by commas). On the title page, these will be labeled as 'Professor(s) - Titularis(sen)'.
Use this macro to specify the academic year in full, i.e. in the form XXXX-YYYY.

`\academicyear` [exam] (mandatory)

`\course` [exam] (mandatory)
see description of `\course` macro on page 10.

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

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

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

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

`\exampart` [exam] (mandatory)
Description of the part of the course the exam covers. Often the evaluation of a course consists of multiple evaluation elements (e.g. a written exam, a portfolio defense and lab reports). Using this macro you can indicate the part this exam covers. E.g. it could be 'Written Exam' (to distinguish from the other parts 'portfolio defense' and 'lab reports').

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

<code>\lecturer</code>	[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.
<code>\programme</code>	[exam] (discontinued) This macro is no longer used. Use <code>\degree{}</code> instead.
<code>\room</code>	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 <code>\room{}</code> commands.
<code>\studentnr</code>	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.
<code>\tend</code>	specifies the end time of the exam in a format identical to the one chosen for <code>\tstart</code> .
<code>\tstart</code>	specifies the start time of the exam, preferable in the format 'HHhMM', e.g. '08h30'.

5.4 Examples

5.4.1 uantwerpencoursetext

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

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

\courseversion{1.3}
\versionyear{2021}

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

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

\academicyear{2021-2022}

\publisher{Universitas Cursusdienst |
Prinsesstraat 16 |
2000 Antwerpen |
```

```

T +32 3 233 23 73 |
E info@cursusdienst.be}

\publishercode{C11111102}

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

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}

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

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

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

\kant[4]

\subsection{Herhaling}

\kant[5]

\subsection{Begint vervelend te worden}

\kant[6]
\newpage

\subsection{Begint echt vervelend te worden}

\kant[7-10]

\chapter{Besluit}

\appendix

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

```

```
\makefinalpage
```

```
\end{document}
```

```
</ct-example>
```

5.4.2 uantwerpenbamathesis

```
<*bmt-example>
```

```
\documentclass[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
```

```
\bamadegree{ti-nl-ma-ei}
```

```
\title{Minimax optimisatie voor performantie-
```

```
ruimtemodellering} % either don't split titles, or do so with hypen
```

```
% 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{2021 - 2022}
```

```

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

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\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{2021}
\titlepageimage{Images/uantwerpen-keyboard.jpg}

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

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}

\kant[1]

\chapter{Onderzoeksvraag}

\section{Het gegeven}

\kant[2]

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

\kant[3-17]

\chapter{Literatuurstudie}

\kant[18-19]

\chapter{Theoretische achtergrond}

\kant[20-21]

\chapter{Eigen realisatie}

\kant[22-24]

\chapter{Besluit}

```

```

\kant[25]

\appendix
\chapter{Symbolen}

\chapter{Publicaties}
Put your bibliography here using BibTeX

\makefinalpage

\end{document}
</pt-example1>

```

English

```

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

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

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

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

\title{Harmonic Signal analysis \\\based on Linear Operators}
\subtitle{How did Mindy linearly kill Mork's IC signal analyzer?}
\author{Ing. Theodore Edgeoff}
\affiliation{University of Antwerp\\
Faculty of Applied Engineering\\
Cosys-Lab}
\address{Groenenborgerlaan 171, 2020 Antwerpen, Belgi"e\\
M: theofiel.hoekaff@uantwerpen.be\\
T: +32 265 00 00
}

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

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

\jurymember{prof. dr. J. 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{2021}
\titlepageimage{Images/uantwerpen-keyboard.jpg}

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

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Introduction}

\kant[1]

\chapter{Research question}

\section{The datum}

\kant[2]

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

\kant[3-17]

\chapter{Literature review}

\kant[18-19]

\chapter{Theoretical background}

\kant[20-21]

\chapter{Technical results}

\kant[22-24]

\chapter{Conclusion}

\kant[25]

\appendix

\chapter{Symbols}

Put your bibliography here using BibTeX

\makefinalpage

```



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

5.4.4 uantwerpenreport

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

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

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

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

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

\versionyear{2021}

\titlepageimage{Images/uantwerpen-keyboard.jpg}

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}
```

```

\kant[1]

\chapter{Smaken en smaakpapillen}

\section{Het gegeven}

\kant[2]

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

\kant[3-17]

\chapter{Experimentele setup}

\kant[18-19]

\chapter{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, ask 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) schrijfgierief, los d.w.z. \emph{niet} in een pennenzak (geen
    papier; er zit examenpapier bij de opgaven),
    (2) je rekenmachine (zonder alfanumerieke data en zonder
    geheugenkaarten),
    (3) het formularium.
  \item Volledig \emph{verboden te gebruiken}: alle apparatuur met
    geheugen- of communicatiefunctie zoals GSM, smartphone,
```

```

smartwatch, muziekspeler, \ldots
Je tas staat vooraan in het lokaal. Hang je jas aan de kapstok of
leg hem bij je tas.
\item Schrijf je naam op het titelblad van de opgave in het daartoe
voorziene vak. Op de andere bladen schrijf je je naam
\emph{niet}. Je examenopgave heeft een uniek nummer dat toelaat het
te identificeren.
\item Op het einde van het examen geef je \emph{alle} bladen weer af
aan de aanwezige docent.
\end{enumerate}
Succes!
}
\studentnr{127}
\setmcsymbol{\bigcirc}

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

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

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

Welk van de onderstaande ingrediënten hoort niet thuis in
een 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{newpymath}
\usepackage{enumitem}
\usepackage[dutch,english]{babel} % last language loaded will
                                   % determine logo version (change to
                                   % [dutch] for a monolingual version)

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

```

```

}
{
  \begin{itemize}
  \item Mogen op je tafeltje aanwezig zijn:
    (1) schrijfgerief, los d.w.z. \emph{niet} in een pennenzak (geen
    papier; er zit examenpapier bij de opgaven),
    (2) je rekenmachine (zonder alfanumerieke data en zonder
    geheugenkaarten),
    (3) het formularium.
  \end{itemize}
}
\engdut{
  \begin{itemize}
  \item \emph{May not be used:} all equipment with memory or
  communications facilities, like cell phones, smart phones, smart
  watches, music players, \ldots
  Your bag must be put in the front of the room. Put your coat on the
  hallstand or next to your bag.
  \end{itemize}
}
{
  \begin{itemize}
  \item Volledig \emph{verboden te gebruiken}: alle apparatuur met
  geheugen- of communicatiefunctie zoals GSM, smartphone,
  smartwatch, muziekspeeler, \ldots
  Je tas staat vooraan in het lokaal. Hang je jas aan de kapstok of
  leg hem bij je tas.
  \end{itemize}
}
\engdut{
  \begin{itemize}
  \item Write your name on the title page. Don't write your name on
  the subsequent pages. Your copy has a unique number to identify it
  as yours.
  \end{itemize}
}
{
  \begin{itemize}
  \item Schrijf je naam op het titelblad van de opgave in het daartoe
  voorziene vak. Op de andere bladen schrijf je je naam
  \emph{niet}. Je examenopgave heeft een uniek nummer dat toelaat het
  te identificeren.
  \end{itemize}
}
\engdut{
  \begin{itemize}
  \item Take your time to \emph{answer all questions in writing}. The
  point weights are listed above every question. Be complete in your
  answer, but stick to the point. Take into account the available time.
  \end{itemize}
}
{
  \begin{itemize}
  \item Neem je tijd om \emph{alle vragen schriftelijk te

```



```

        beantwoorden}. Het puntengewicht van een vraag is bovenaan de vraag
        op de opgavebladen vermeld. Wees volledig in je antwoord, maar ter
        zake. Houd rekening met de beschikbare tijd.
    \end{itemize}
}
\engdut{
    \begin{itemize}
    \item Hand in \emph{all} papers to the staff member on duty, at the
        end of the examination.
    \end{itemize}
    Success!
}
{
    \begin{itemize}
    \item Op het einde van het examen geef je \emph{alle} bladen weer af
        aan de aanwezige docent.
    \end{itemize}
    Succes!
}
\clearpage
}

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

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

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

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

\insertsolutionspagepartial{20}

```

```

\insertsolutionspage{}
\clearpage

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

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

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

```

6 Implementation of the classes

6.1 Common options

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

```

1 (*clo)
2 \newif\if@neutralcolors
3 \@neutralcolorsfalse
4 \DeclareOption{neutralcolors}{\@neutralcolorstrue}
5
6 \newcommand*\colormodel{rgb}
7 \newif\if@cmymk
8 \@cmymkfalse
9 \DeclareOption{cmymk}{\renewcommand*\colormodel{cmymk}\@cmymktrue}

```

```

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

```

```

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

```

6.2 Color scheme

```
111 (*cls)
112 \if@cmymk
113 %% UAntwerpen
114 \definecolor{uauamain}{cmyk}{0.00,0.96,0.82,0.01}
115 \definecolor{uauaside}{cmyk}{1.00,0.71,0.00,0.51}
116 %% Faculteit Bedrijfswetenschappen en Economie
117 \definecolor{uabemain}{cmyk}{0.58,0.00,1.00,0.04}
118 \definecolor{uabeside}{cmyk}{0.29,0.04,0.41,0.00}
119 %% Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
120 \definecolor{uafbdmain}{cmyk}{0.65,0.03,0.00,0.00}
121 \definecolor{uafbdside}{cmyk}{0.33,0.03,0.00,0.00}
122 %% Faculteit Geneeskunde en Gezondheidswetenschappen
123 \definecolor{uaggwmain}{cmyk}{0.61,0.55,0.00,0.00}
124 \definecolor{uaggwside}{cmyk}{0.21,0.27,0.03,0.00}
125 %% Faculteit Letteren en Wijsbegeerte
126 \definecolor{ualwmain}{cmyk}{0.00,0.27,0.85,0.00}
127 \definecolor{ualwside}{cmyk}{0.00,0.16,0.51,0.00}
128 %% Faculteit Ontwerpwetenschappen
129 \definecolor{uaowmain}{cmyk}{0.53,0.25,0.26,0.05}
130 \definecolor{uaowside}{cmyk}{0.25,0.08,0.16,0.00}
131 %% Faculteit Rechten
132 \definecolor{uaremain}{cmyk}{0.10,1.00,0.90,0.05}
133 \definecolor{uareside}{cmyk}{0.04,0.45,0.36,0.00}
134 %% Faculteit Sociale Wetenschappen
135 \definecolor{uaswmain}{cmyk}{0.08,0.00,1.00,0.26}
136 \definecolor{uaswside}{cmyk}{0.20,0.11,0.50,0.00}
137 %% Faculteit Toegepaste Ingenieurswetenschappen
138 \definecolor{uatimain}{cmyk}{0.31,1.00,0.00,0.01}
139 \definecolor{uatiside}{cmyk}{0.11,0.30,0.02,0.00}
140 %% Faculteit Wetenschappen
141 \definecolor{uawemain}{cmyk}{1.00,0.20,0.00,0.25}
142 \definecolor{uaweside}{cmyk}{0.40,0.08,0.00,0.10}
143 %% IOB
144 \definecolor{uaiobmain}{cmyk}{0.05,0.75,1.00,0.00}
145 \definecolor{uaiobside}{cmyk}{0.40,0.08,0.00,0.10}
146 \else
147 %% UAntwerpen
148 \definecolor{uauamain}{RGB}{234,44,56}
149 \definecolor{uauaside}{RGB}{0,46,101}
150 %% Faculteit Bedrijfswetenschappen en Economie
151 \definecolor{uabemain}{RGB}{101,168,18}
152 \definecolor{uabeside}{RGB}{185,213,169}
153 %% Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
154 \definecolor{uafbdmain}{RGB}{68,184,243}
155 \definecolor{uafbdside}{RGB}{181,221,247}
156 %% Faculteit Geneeskunde en Gezondheidswetenschappen
157 \definecolor{uaggwmain}{RGB}{117,117,203}
158 \definecolor{uaggwside}{RGB}{198,182,210}
159 %% Faculteit Letteren en Wijsbegeerte
160 \definecolor{ualwmain}{RGB}{241,181,61}
161 \definecolor{ualwside}{RGB}{255,218,145}
162 %% Faculteit Ontwerpwetenschappen
```

```

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

```

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

```

6.4 Modern typesetting

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

```

241 <*ct | bmt | pt | rp | le | ex>
242 \setlength{\parindent}{0pt}
243 \addtolength{\parskip}{0.75\baselineskip}
244 \setcounter{secnumdepth}{3}
245 </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:

```
246 <*ct | rp | ex>
247 \RequirePackage[top=2.5cm, bottom=2.5cm, left=2.5cm, right=2.5cm]{geometry}
248 </ct | rp | ex>
249 % Let's follow the instructions by ADS for the (marginal(!) glue provision):
250 <*pt>
251 \RequirePackage[paperwidth=180mm,paperheight=260mm,
252                 top=2.5cm,bottom=2.5cm,left=2.6cm,right=1.8cm,twoside]
253                 {geometry}
254 </pt>
255 % Also, let's follow the office templates for the bachelor's and
256 % master's theses:
257 <*bmt>
258 \RequirePackage[top=2.6cm, bottom=2.5cm, left=3.5cm, right=1.6cm]{geometry}
259 </bmt>
260 % Letters are a little bit different:
261 <*le>
262 \RequirePackage[top=1in, bottom=1in, left=1.34in, right=1in]{geometry}
263 \RequirePackage[normalem]{ulem}
264 </le>
```

6.5.2 Preparing for L^AT_EX3

Let's make things a bit easier for me.

```
265 <*ct | bmt | pt | rp | le | ex>
266 \RequirePackage{expl3}
267 %\RequirePackage[check-declarations]{expl3} % I use this during debug phase
268 \RequirePackage{xparse}
269 </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.

```
270 <*ct | bmt | pt | rp | le>
271 % no more font code
272 </ct | bmt | pt | rp | le>
```

6.5.4 Boilerplate packages

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

```
273 <*ct | bmt | pt | rp | le | ex>
```



```

274 \RequirePackage{iftex}
275 \RequirePackage{xstring}
276 \RequirePackage{etoolbox}
277 \RequirePackage{ifthen}
278 \IfFileExists{shellesc.sty}{\RequirePackage{shellesc}}{}
279 </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:

```

280 <*ct | bmt | pt | rp | le | ex>
281 \RequirePackage{graphicx}
282 \RequirePackage{soul}
283 \RequirePackage[export]{adjustbox}
284 \RequirePackage{color}
285 \RequirePackage{tikz}
286 \usetikzlibrary{positioning,calc}
287 \RequirePackage{eso-pic}
288 </ct | bmt | pt | rp | le | ex>
289 <*ct | rp>
290 \if@copyright
291 \RequirePackage[contents={},color=lightgray,scale=3]{background}
292 \fi
293 </ct | rp>
294 <*pt>
295 \usepackage{ean13isbn}
296 </pt>

```

6.5.6 UAntwerpen color and logo scheme

```

297 <*ct | bmt | pt | rp | le | ex>
298 \RequirePackage{uantwerpencolorlogoscheme}
299 </ct | bmt | pt | rp | le | ex>

```

6.5.7 Header/Footer

The de-facto standard for headers and footers:

```

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

```

6.6 Colors

```

303 <*ct | bmt | pt | rp | le | ex>
304 \definecolor{lightgray}{cmyk}{0.00,0.00,0.00,0.05}
305 \definecolor{darkgray}{cmyk}{0.00,0.00,0.00,0.80}
306 \definecolor{watermark}{cmyk}{0.00,0.00,0.00,0.05}

```

```
307 </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.

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

6.8 Fancy inset texts and quotes

```
320 (*bmt | pt | ct | rp)
321 \newcommand\insettext[1]{
322 \textcolor{basecolor}{
323 \begin{tabular}{@{\hskip3ex}\textcolor{maincolor}{\vrule width 2.5pt}\hskip3ex\large\bfseries
324 \strut #1
325 \end{tabular}
326 }
327 }
328 \newcommand\insetquote[1]{
329 \insettext{
330 \begin{tikzpicture}[scale=0.65]
331 \fill[green!60!black] (0.4,0) -- (0.5,0) -- (0.75,-0.15) -- (0.75,0) --
332 (0.9,0) arc(-90:0:0.1) -- (1,0.65) arc(0:90:0.1) -- (0.1,0.75) arc
333 (90:180:0.1) -- (0,0.1) arc(-180:-90:0.1) -- cycle;
334 \foreach \x in {0.35,0.7} {
335 \begin{scope}[shift={(\x,0.425)},scale=0.25]
336 \fill[white] (0,0) circle[radius=0.5];
337 \fill[white] (0.5,0) arc(0:-90:1) --
338 (-0.5,-0.725) arc(-90:0:0.725) -- cycle;
339 \end{scope}
340 }
341 \end{tikzpicture}}\
342 #1
343 }
344 }
345 </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.

```
346 <*pt>
347 \if@cameraready
348 \RequirePackage[cam,center,width=21truecm,height=29.7truecm]{crop}
349 \fi
350 </pt>
```

6.10 Data dictionary and parser

Let's start by defining our dictionary:

```
351 <*ct | bmt | pt | rp | le | ex>
352 \ExplSyntaxOn
353 \prop_new:N \g_@@_data_prop
354 </ct | bmt | pt | rp | le | ex>%
```

The dictionary can be accessed using the following document command:

```
355 <*ct | bmt | pt | rp | le | ex>
356 \NewDocumentCommand{\uantwerpendocsprop}{m}{
357   \prop_item:Nn \g_@@_data_prop{#1}
358 }
359 \NewDocumentCommand{\uantwerpendocsPROP}{m}{
360   \str_uppercase:f { \prop_item:Nn \g_@@_data_prop{#1} }
361 }
362 </ct | bmt | pt | rp | le | ex>%
```

To this end, we use the following parsing infrastructure:

```
363 <*ct | bmt | pt | rp | le | ex>
364 \NewDocumentCommand{\uantwerpendocspropread}{m}{
365   \@@_datareader:n { #1 }
366 }
367 \cs_generate_variant:Nn \prop_gput:Nnn{ Nxx }
368 \cs_new_nopar:Npn \@@_dataparser:w #1 = #2!! {
369   \tl_set:Nn \l_tmpa_tl {#1}
370   \tl_set:Nn \l_tmpb_tl {#2}
371   \tl_trim_spaces:N \l_tmpa_tl
372   \tl_trim_spaces:N \l_tmpb_tl
373   \prop_gput:Nxx \g_@@_data_prop { \l_tmpa_tl } { \l_tmpb_tl }
374 }
375 </ct | bmt | pt | rp | le | ex>
```

invoked by the following data file reader:

```
376 <*ct | bmt | pt | rp | le | ex>
```

```

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

```

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

```

389 <*ct | bmt | pt | rp | le | ex>
390 \clist_map_inline:nn {en} {
391   \@@_datareader:n { #1 }
392 }
393 %\prop_show:N \g_@@_data_prop
394 \ExplSyntaxOff
395 </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).

```

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

```

The English data can be found below:

```

414 <*endata>
415 org-be           = Faculty of Business and Economics
416 org-fbd          = Faculty of Pharmaceutical, Biomedical and Veterinary Sciences

```

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

The Dutch data can be found below:

466 (*nldata)
467 org-be = Faculteit Bedrijfswetenschappen en Economie

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

6.12 Bachelor and Master document types

```

518 <*doctypedata>
519 nl-ba = Bachelorproef
520 nl-ma = Masterproef
521 nl-pr = Projectverslag
522 en-ba = Bachelor's thesis
523 en-ma = Master's thesis
524 en-pr = Project report
525 </doctypedata>

526 <*bmt | ct | pt | ex>
527 \ExplSyntaxOn
528 \cs_generate_variant:Nn \prop_item:Nn{ Nx }
529 \NewDocumentCommand{\uantwerpendocsdoctype}{m}{
530   \prop_item:Nx \g_@@_data_prop { #1 }
531 }
532 \ExplSyntaxOff
533 </bmt | ct | pt | ex>

```

6.13 Bachelor and Master disclaimers

```

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

```

```

568 Voorafgaande schriftelijke toestemming van de promotor(en) is eveneens
569 vereist voor het aanwenden van de in dit afstudeerwerk beschreven
570 (originele) methoden, producten, schakelingen en programma's voor
571 industrieel of commercieel nut en voor de inzending van deze
572 publicatie ter deelname aan wetenschappelijke prijzen of wedstrijden.
573 \newline\newline
574 Dit document is in overeenstemming met het masterproefreglement en de
575 gedragscode en nagekeken door promotor en begeleider.
576 }
577 }
578 }{}
579 \makeatletter
580 }
581 </bmt>

```

6.14 Educational degrees

```

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

```



```

617 we-nl-ma-infdsai = Master of Science in de informatica: data science en artificiële intelliger
618 we-nl-ma-infse = Master of Science in de informatica: software engineering
619 we-nl-ba-fy = Bachelor of Science in de fysica
620 we-nl-ma-fy = Master of Science in de fysica
621 we-en-ma-fy = Master of Science in physics
622 we-nl-ba-wi = Master of Science in wiskunde
623 we-nl-ma-wifw = Master of Science in wiskunde: fundamentele wiskunde
624 we-nl-ma-wiftw = Master of Science in wiskunde: financiële en toegepaste wiskunde
625 </degreedata>

626 (*bmt | ct | pt | ex)
627 \ExplSyntaxOn
628 \NewDocumentCommand{\uantwerpenocsdegree}{m}{
629   \prop_item:Nx \g_@@_data_prop { #1 }
630 }
631 \ExplSyntaxOff
632 </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.

```

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

```

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

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

```

642 (*ct | pt | rp)
643 \newcommand*\@subtitle}{~}
644 \newcommand*\@subtitle}[1]{%
645   \renewcommand*\@subtitle{#1}
646 }
647 </ct | pt | rp>

```

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

```

648 (*ex)
649 \newcommand*\@shorttitle}{~}
650 \newcommand*\@shorttitle}[1]{%
651   \renewcommand*\@shorttitle{#1}

```

```
652 }
653 </ex>
```

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

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

```
654 <*ct>
655 \newcommand*\@courseversion{}
656 \newcommand*\courseversion[1]{\renewcommand*\@courseversion{#1}}
657 </ct>
```

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

```
658 <*ct | rp>
659 \newcommand*\@versionyear{}
660 \newcommand*\versionyear[1]{\renewcommand*\@versionyear{#1}}
661 </ct | rp>
```

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

```
662 <*ct>
663 \newcommand*\@publisher{Universitas Cursusdienst |
664 Prinsesstraat 16 |
665 2000 Antwerpen |
666 T +32 3 233 23 73 |
667 E info@cursusdienst.be}
668 \newcommand*\publisher[1]{\renewcommand*\@publisher{#1}}
669 </ct>
```

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

```
670 <*ct>
671 \newcommand*\@publishercode{}
672 \newcommand*\publishercode[1]{\renewcommand*\@publishercode{#1}}
673 </ct>
```

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

```
674 <*bmt>
675 \newcommand*\@companylogo{}
676 \newcommand*\companylogo[1]{\renewcommand*\@companylogo{#1}}
677 </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!

```
678 <*ct | ex>
```

```

679 \ExplSyntaxOn
680 \seq_new:N \g_@@_lecturers
681 \cs_new:Nn \@@_addlecturer:n {
682   \seq_gpush:Nn \g_@@_lecturers { #1 }
683 }
684 \NewDocumentCommand{\lecturer}{m}{
685   \@@_addlecturer:n { #1 }
686 }
687 \NewDocumentCommand{\jointlecturers}{m}{
688   \seq_use:Nn \g_@@_lecturers { #1 }
689 }
690 \NewDocumentCommand{\lecturersname}{-}{
691   \if_int_compare:w \seq_count:N \g_@@_lecturers > 1
692     \uantwerpendocsprop{lecturersname}
693   \else:
694     \if_int_compare:w \seq_count:N \g_@@_lecturers > 0
695       \uantwerpendocsprop{lecturersname}
696     \fi
697   \fi:
698 }
699 \AtBeginDocument{
700   \seq_greverse:N \g_@@_lecturers
701 }
702
703 \ExplSyntaxOff
704 </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.

```

705 < *rp >
706 \newcommand\@extra{}
707 \newcommand\extra[1]{\renewcommand\@extra{#1}}
708 < /rp >

```

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

```

709 < *pt | rp >
710 \newcommand\@affiliation{
711   \PackageError{uantwerpendocs}
712   {Please, define the affiliation of the author using the
713     '\protect\affiliation{' command in the preamble of your
714     document.}
715   {See the uantwerpendocs manual}
716 }
717 \newcommand\affiliation[1]{\renewcommand\@affiliation{#1}}
718 < /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!

```

719 < *bmt | pt >

```

```

720 \ExplSyntaxOn
721 \seq_new:N \g_@@_supervisors
722 \seq_new:N \g_@@_supervisorswithaffiliation
723 \cs_new:Nn \@@_addsupervisor:nn {
724   \seq_gpush:Nn \g_@@_supervisors { #1 }
725   \seq_gpush:Nn \g_@@_supervisorswithaffiliation { #1,~#2 }
726 }
727 \NewDocumentCommand{\supervisor}{mm}{
728   \@@_addsupervisor:nn { #1 } { #2 }
729 }
730 \NewDocumentCommand{\jointssupervisors}{mm}{
731   \seq_use:Nnnn \g_@@_supervisors { #2 } { #1 } { #2 }
732 }
733 \NewDocumentCommand{\jointssupervisorswithaffiliation}{mm}{
734   \seq_use:Nnnn \g_@@_supervisorswithaffiliation { #2 } { #1 } { #2 }
735 }
736 \NewDocumentCommand{\supervisorsname}{m}{
737   \if_int_compare:w \seq_count:N \g_@@_supervisors > 2
738   \uantwerpendocsprop{supervisorsname} #1
739   \else:
740   \if_int_compare:w \seq_count:N \g_@@_supervisors = 2
741   \uantwerpendocsprop{supervisorname} #1
742   \else:
743   \fi:
744   \fi:
745 }
746 </bmt | pt)
747 (*bmt)
748 \seq_new:N \g_@@_cosupervisors
749 \seq_new:N \g_@@_cosupervisorswithaffiliation
750 \cs_new:Nn \@@_addcosupervisor:nn {
751   \seq_gpush:Nn \g_@@_cosupervisors { #1 }
752   \seq_gpush:Nn \g_@@_cosupervisorswithaffiliation { #1,~#2 }
753 }
754 \NewDocumentCommand{\cosupervisor}{mm}{
755   \@@_addcosupervisor:nn { #1 } { #2 }
756 }
757 \NewDocumentCommand{\jointcosupervisors}{mm}{
758   \seq_use:Nnnn \g_@@_cosupervisors { #2 } { #1 } { #2 }
759 }
760 \NewDocumentCommand{\jointcosupervisorswithaffiliation}{mm}{
761   \seq_use:Nnnn \g_@@_cosupervisorswithaffiliation { #2 } { #1 } { #2 }
762 }
763 \NewDocumentCommand{\cosupervisorsname}{m}{
764   \if_int_compare:w \seq_count:N \g_@@_cosupervisors > 2
765   \uantwerpendocsprop{cosupervisorsname} #1
766   \else:
767   \if_int_compare:w \seq_count:N \g_@@_cosupervisors = 2
768   \uantwerpendocsprop{cosupervisorname} #1
769   \else:
770   \fi:
771   \fi:
772 }
773 \seq_new:N \g_@@_extsupervisors

```

```

774 \seq_new:N \g_@@_extsupervisorswithaffiliation
775 \cs_new:Nn \@@_addextsupervisor:nn {
776   \seq_gpush:Nn \g_@@_extsupervisors { #1 }
777   \seq_gpush:Nn \g_@@_extsupervisorswithaffiliation { #1,~#2 }
778 }
779 \NewDocumentCommand{\extsupervisor}{mm}{
780   \@@_addextsupervisor:nn { #1 } { #2 }
781 }
782 \NewDocumentCommand{\jointextsupervisors}{mm}{
783   \seq_use:Nnnn \g_@@_extsupervisors { #2 } { #1 } { #2 }
784 }
785 \NewDocumentCommand{\jointextsupervisorswithaffiliation}{mm}{
786   \seq_use:Nnnn \g_@@_extsupervisorswithaffiliation { #2 } { #1 } { #2 }
787 }
788 \NewDocumentCommand{\extsupervisorsname}{m}{
789   \if_int_compare:w \seq_count:N \g_@@_extsupervisors > 2
790     \uantwerpendocsprop{extsupervisorsname} #1
791   \else:
792     \if_int_compare:w \seq_count:N \g_@@_extsupervisors = 2
793       \uantwerpendocsprop{extsupervisorname} #1
794     \else:
795       \fi:
796     \fi:
797 }
798 </bmt>
799 < *pt>
800 \AtBeginDocument{
801   \seq_gpush:Nn \g_@@_supervisors {}
802   \seq_greverse:N \g_@@_supervisors
803   \seq_gpush:Nn \g_@@_supervisorswithaffiliation {}
804   \seq_greverse:N \g_@@_supervisorswithaffiliation
805 }
806 </pt>
807 < *bmt>
808 \AtBeginDocument{
809   \seq_gpush:Nn \g_@@_supervisors {}
810   \seq_greverse:N \g_@@_supervisors
811   \seq_gpush:Nn \g_@@_supervisorswithaffiliation {}
812   \seq_greverse:N \g_@@_supervisorswithaffiliation
813   \seq_gpush:Nn \g_@@_cosupervisors {}
814   \seq_greverse:N \g_@@_cosupervisors
815   \seq_gpush:Nn \g_@@_cosupervisorswithaffiliation {}
816   \seq_greverse:N \g_@@_cosupervisorswithaffiliation
817   \seq_gpush:Nn \g_@@_extsupervisors {}
818   \seq_greverse:N \g_@@_extsupervisors
819   \seq_gpush:Nn \g_@@_extsupervisorswithaffiliation {}
820   \seq_greverse:N \g_@@_extsupervisorswithaffiliation
821 }
822 </bmt>
823 < *bmt | pt>
824 \ExplSyntaxOff
825 </bmt | pt>

```

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

```
826 (*pt)
827 \newcommand*\@jurychairman){
828   \PackageError{uantwerpendocs}
829   {Please, define a chairman of the jury using the
830     '\protect\jurychairman{ }' command in the preamble of your
831     document.}
832   {See the uantwerpendocs manual}
833 }
834 \newcommand*\@jurychairmanaff){}
835 \newcommand*\jurychairman}[2]{
836   \renewcommand*\@jurychairman}{#1}\renewcommand*\@jurychairmanaff}{#2}}
837 </pt>
```

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

```
838 (*pt)
839 \ExplSyntaxOn
840 \seq_new:N \g_@@_jurymemberswithaffiliation
841 \cs_new:Nn \@@_addjurymember:nn {
842   \seq_gpush:Nn \g_@@_jurymemberswithaffiliation { #1,~#2 }
843 }
844 \NewDocumentCommand{\jurymember}{mm}{
845   \@@_addjurymember:nn { #1 } { #2 }
846 }
847 \NewDocumentCommand{\jointjurymembers}{m}{
848   \seq_use:Nn \g_@@_jurymemberswithaffiliation { #1 }
849 }
850 \AtBeginDocument{
851   \seq_reverse:N \g_@@_jurymemberswithaffiliation
852 }
853 \ExplSyntaxOff
854 </pt>
```

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

```
855 (*pt)
856 \newcommand*\phddegree{
857   \PackageError{uantwerpendocs}
858   {The '\protect\phddegree{ }' macro is no longer available. Use
859     '\protect\degree{ }' instead}
860   {The interface of uantwerpendocs 4.0 has been changed. Use the
861     '\protect\degree' macro to specify your degree in full text (see
862     the uantwerpendocs manual)'}
863 }
864 </pt>
865 %
866 %
867 % \begin{macro}{\degree}
868 %   This macro sets the |\@degree| tag that later will
```

```

869 %   be used on the title pages.
870 %
871 %   \begin{macrocode}
872 (*bmt | pt | ct | ex)
873 \newcommand*\@degree{
874   \PackageError{uantwerpendocs}
875   {Please, specify the official degree description using
876     the '\protect\degree{ }' macro in the preamble of your document.}
877   {See the uantwerpendocs manual}
878 }
879 \newcommand*\degree[1]{\renewcommand*\@degree{#1}}
880 \end{macrocode}

```

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

```

881 (*bmt | pt | ct | ex)
882 \newcommand*\@bamadoctype{
883   \PackageError{uantwerpendocs}
884   {Please, specify the official document type, either using
885     the '\protect\bamadoctype{ }' macro or the '\protect\bamadegree{ }'
886     macro in the preamble of your document.}
887   {See the uantwerpendocs manual}}
888 \newcommand*\bamadoctype[1]{
889   \renewcommand*\@bamadoctype{\uantwerpendocsdoctype{#1}}
890 }
891 \end{macrocode}

```

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

```

892 (*bmt | pt | ct | ex)
893 \ExplSyntaxOn
894 \NewDocumentCommand{\bamadegree}{m}{
895   \seq_new:N \l_@_degreechunks
896   \regex_extract_all:nnN { [^-]+ } { #1 } \l_@_degreechunks
897   \bamadoctype{\seq_item:Nn\l_@_degreechunks {2} - \seq_item:Nn\l_@_degreechunks {3}}
898   \degree{\uantwerpendocsdegree{
899     \seq_item:Nn\l_@_degreechunks {1} -
900     \seq_item:Nn\l_@_degreechunks {2} -
901     \seq_item:Nn\l_@_degreechunks {3} -
902     \seq_item:Nn\l_@_degreechunks {4} }}
903 }
904 \ExplSyntaxOff
905 \end{macrocode}

```

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

```

906 (*ct | pt | ex)
907 \newcommand*\programme[3]{
908   \PackageError{uantwerpendocs}
909   {The '\protect\programme{ }{ }{ }' macro is no longer available. Use
910     '\protect\degree{ }' instead}
911   {The interface of uantwerpendocs 4.0 has been changed. Use the

```

```

912   '\protect\degree' macro to specify your degree in full text (see
913   the uantwerpendocs manual)'}
914 }
915 </ct|pt|ex>

```

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

```

916 <*ct>
917 \newcommand*\coursei[2]{
918   PackageError{uantwerpendocs}
919   {The '\protect\coursei{' macro is no longer available. Use
920     '\protect\course{' instead (multiple times if you need to)}
921   {The interface of uantwerpendocs 4.0 has been changed. Use the
922     '\protect\course macro instead of the \protect\coursei,
923     \protect\courseii, \protect\courseiii and \protect\courseiv macros
924     that existed earlier (see
925     the uantwerpendocs manual)'}
926 }
927 \ExplSyntaxOn
928 \seq_new:N \g_@@_courseswithcodes
929 \cs_new:Nn \@@_addcourse:nm {
930   \seq_gpush:Nn \g_@@_courseswithcodes{ \texttt{#1}~#2 }
931 }
932 \NewDocumentCommand{\course}{mm}{
933   \@@_addcourse:nm { #1 } { #2 }
934 }
935 \NewDocumentCommand{\jointcourseswithcodes}{m}{
936   \seq_use:Nn \g_@@_courseswithcodes { #1 }
937 }
938 \AtBeginDocument{
939   \seq_greverse:N \g_@@_courseswithcodes
940 }
941 \ExplSyntaxOff
942 </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.

```

943 <*ex>
944 \newcommand*\@coursecode{}
945 \newcommand*\@course{}
946 \newcommand*\course[2]{
947   \renewcommand*\@coursecode{#1}
948   \renewcommand*\@course{#2}
949 }
950 </ex>

```

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

```

951 <*bmt|pt>
952 \newcommand*\diploma[1]{

```



```

953 \PackageError{uantwerpendocs}
954 {The '\protect\diploma{}' macro is no longer available. Use
955   '\protect\degree{}' instead}
956 {The interface of uantwerpendocs 4.0 has been changed. Use the
957   '\protect\degree' macro to specify your degree in full text (see
958   the uantwerpendocs manual)'}
959 }
960 </bmt | pt>

```

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

```

961 < *pt >
962 \newcommand*\@defensedate{ERROR}
963 \newcommand*\defensedate[1]{\renewcommand*\@defensedate{#1}}
964 < /pt >

```

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

```

965 < *pt >
966 \newcommand*\@defenselocation{Antwerpen}
967 \newcommand*\defenselocation[1]{\renewcommand*\@defenselocation{#1}}
968 < /pt >

```

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

```

969 < *ct | pt | rp >
970 \newcommand*\@titlepageimage{}
971 \newcommand*\titeplageimage[1]{\renewcommand*\@titlepageimage{#1}}
972 < /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).

```

973 < *pt >
974 \newcommand*\@isbn{}
975 \newcommand*\isbn[1]{\renewcommand*\@isbn{#1}}
976 < /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).

```

977 < *pt >
978 \newcommand*\@depot{}
979 \newcommand*\depot[1]{\renewcommand*\@depot{#1}}
980 < /pt >

```

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

```

981 < *ct | bmt | ex >
982 \newcommand*\@academicyear{XXX-YYYY}
983 \newcommand*\academicyear[1]{\renewcommand*\@academicyear{#1}}
984 < /ct | bmt | ex >

```

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

```
985 (*ct | rp)
986 \newcommand{\@copyrightnotices}{}
987 \newcommand{\copyrightnotices}[1]{\renewcommand{\@copyrightnotices}{#1}}
988 (/ct | rp)
989 (*bmt)
990 \newcommand{\@copyrightnotices}{\disclaimer{\@bamadoctype}}
991 (/bmt)
```

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

```
992 (*le)
993 \newcommand*{\@sender}{< Specify sender using
994 \textbackslash{}sender\{name\}\{role\} >}
995 \newcommand*{\@senderrole}{-}
996 \newcommand*{\sender}[2]{\renewcommand*{\@sender}{#1}\renewcommand*{\@senderrole}{#2}}
997 (/le)
```

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

```
998 (*le | ex)
999 \newcommand*{\logo}[1]{\renewcommand*{\@logo}{#1}}
1000 (/le | ex)
```

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

```
1001 (*le)
1002 \newcommand*{\@unit}{}
1003 \newcommand*{\unit}[1]{\renewcommand*{\@unit}{#1}}
1004 (/le)
```

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

```
1005 (*le)
1006 \ExplSyntaxOn
1007 \seq_new:N \g_@@_emailaddresses
1008 \cs_new:Nn \@@_addemailaddress:nn {
1009   \seq_gpush:Nn \g_@@_emailaddresses {#1\tat{ }#2}
1010 }
1011 \NewDocumentCommand{\email}{mm}{
1012   \@@_addemailaddress:nn { #1 } { #2 }
1013 }
1014 \NewDocumentCommand{\jointemails}{m}{
1015   \seq_use:Nn \g_@@_emailaddresses { #1 }
1016 }
1017 \NewDocumentCommand{\ifemails}{m}{
1018   \seq_if_empty:NTF \g_@@_emailaddresses {} {#1}
1019 }
```

```

1020 \AtBeginDocument{
1021   \seq_greverse:N \g_@@_emailaddresses
1022 }
1023 \ExplSyntaxOff
1024 </le>

```

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

```

1025 (*le)
1026 \ExplSyntaxOn
1027 \seq_new:N \g_@@_phonenumbers
1028 \cs_new:Nn \@@_addphonenumber:n {
1029   \seq_gpush:Nn \g_@@_phonenumbers {#1}
1030 }
1031 \NewDocumentCommand{\phone}{m}{
1032   \@@_addphonenumber:n { #1 }
1033 }
1034 \NewDocumentCommand{\jointphones}{m}{
1035   \seq_use:Nn \g_@@_phonenumbers { #1 }
1036 }
1037 \NewDocumentCommand{\ifphones}{m}{
1038   \seq_if_empty:NTF \g_@@_phonenumbers {} {#1}
1039 }
1040 \AtBeginDocument{
1041   \seq_greverse:N \g_@@_phonenumbers
1042 }
1043 \ExplSyntaxOff
1044 </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)

```

1045 (*le)
1046 \ExplSyntaxOn
1047 \seq_new:N \g_@@_faxnumbers
1048 \cs_new:Nn \@@_addfaxnumber:n {
1049   \seq_gpush:Nn \g_@@_faxnumbers {#1}
1050 }
1051 \NewDocumentCommand{\fax}{m}{
1052   \@@_addfaxnumber:n { #1 }
1053 }
1054 \NewDocumentCommand{\jointfaxes}{m}{
1055   \seq_use:Nn \g_@@_faxnumbers { #1 }
1056 }
1057 \NewDocumentCommand{\iffaxes}{m}{
1058   \seq_if_empty:NTF \g_@@_faxnumbers {} {#1}
1059 }
1060 \AtBeginDocument{
1061   \seq_greverse:N \g_@@_faxnumbers
1062 }
1063 \ExplSyntaxOff
1064 </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)

```

1065 (*le)
1066 \ExplSyntaxOn
1067 \seq_new:N \g_@@_mobilenumbers
1068 \cs_new:Nn \@@_addmobilenumber:n {
1069   \seq_gpush:Nn \g_@@_mobilenumbers {#1}
1070 }
1071 \NewDocumentCommand{\mobile}{m}{
1072   \@@_addmobilenumber:n { #1 }
1073 }
1074 \NewDocumentCommand{\jointmobiles}{m}{
1075   \seq_use:Nn \g_@@_mobilenumbers { #1 }
1076 }
1077 \NewDocumentCommand{\ifmobiles}{m}{
1078   \seq_if_empty:NTF \g_@@_mobilenumbers {} {#1}
1079 }
1080 \AtBeginDocument{
1081   \seq_reverse:N \g_@@_mobilenumbers
1082 }
1083 \ExplSyntaxOff
1084 (/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).

```

1085 (*le)
1086 \newcommand*{\@returnaddress}{<specify return-address using \textbackslash{single-
    line-return-address}>}
1087 \renewcommand*{\@returnaddress}[1]{\renewcommand*{\@returnaddress}{#1}}
1088 (/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).

```

1089 (*le)
1090 \newcommand*{\@to}{<Specify addressee using \textbackslash{}to\{name\}>}
1091 \renewcommand*{\@to}[1]{\renewcommand*{\@to}{#1}}
1092 (/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).

```

1093 (*le)
1094 \newcommand*{\@toorganization}{}
1095 \renewcommand*{\@toorganization}[1]{\renewcommand*{\@toorganization}{#1}}
1096 (/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).

```

1097 (*le)

```

```
1098 \newcommand*{\@toaddress}{}
1099 \newcommand*{\@toaddress}[1]{\renewcommand*{\@toaddress}{#1}}
1100 </le>
```

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

```
1101 (*le)
1102 \newcommand*{\@subject}{}
1103 \newcommand*{\subject}[1]{\renewcommand*{\@subject}{#1}}
1104 </le>
```

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

```
1105 (*le)
1106 \renewcommand*{\opening}[1]{#1}
1107 </le>
```

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

```
1108 (*le)
1109 \newcommand*{\@closing}{<specify a closing formula using
1110 \textbackslash{closing}\{>}
1111 \renewcommand*{\closing}[1]{\renewcommand*{\@closing}{#1}}
1112 </le>
```

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

```
1113 (*le)
1114 \newcommand*{\@signature}{\vspace*{8ex}}
1115 \renewcommand*{\signature}[1]{\renewcommand*{\@signature}{#1}}
1116 </le>
```

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

```
1117 (*le)
1118 \newcommand*{\@carboncopy}{}
1119 \newcommand*{\carboncopy}[1]{\renewcommand*{\@carboncopy}{#1}}
1120 </le>
```

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

```
1121 (*le)
1122 \newcommand*{\@enclosed}{}
1123 \newcommand*{\enclosed}[1]{\renewcommand*{\@enclosed}{#1}}
1124 </le>
```

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

```

1125 <*pt | rp | le>
1126 \newcommand*{\@address}{
1127   \PackageError{uantwerpendocs}
1128   {Please, set your multi-line address and contact details using the
1129     '\protect\address{ }' command in the preamble of your document}
1130   {See the uantwerpendocs manual}
1131 }
1132 </pt | rp | le>
1133 %
1134 <pt | rp>\newcommand*{\address}[1]{\renewcommand*{\@address}{#1}}
1135 <le>\renewcommand*{\address}[1]{\renewcommand*{\@address}{#1}}
1136 %   \end{\macrocode}
1137 % \end{macro}
1138 %
1139 % \begin{macro}{\exampart}
1140 %   This macro will set the |\@examgropunumber| tag that will be used on
1141 %   the exam title page.
1142 %   \begin{macrocode}
1143 <*ex>
1144 \newcommand*{\@exampart}{}
1145 \newcommand*{\exampart}[1]{\renewcommand*{\@exampart}{#1}}
1146 </ex>

```

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

```

1147 <*ex>
1148 \newcommand*{\@examgroupnumber}{}
1149 \newcommand*{\examgroupnumber}[1]{\renewcommand*{\@examgroupnumber}{#1}}
1150 </ex>

```

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

```

1151 <*ex>
1152 \newcommand*{\@examdate}{TBD}
1153 \newcommand*{\examdate}[1]{\renewcommand*{\@examdate}{#1}}
1154 </ex>

```

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

```

1155 <*ex>
1156 \newcommand*{\@examlength}{TBD}
1157 \newcommand*{\examlength}[1]{\renewcommand*{\@examlength}{#1}}
1158 </ex>

```

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

```

1159 <*ex>
1160 \newcommand*{\@tstart}{TBD}
1161 \newcommand*{\tstart}[1]{\renewcommand*{\@tstart}{#1}}
1162 </ex>

```

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

```
1163 ⟨*ex⟩
1164 \newcommand{\@tend}{TBD}
1165 \newcommand{\tend}[1]{\renewcommand{\@tend}{#1}}
1166 ⟨/ex⟩
```

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

```
1167 ⟨*ex⟩
1168 \ExplSyntaxOn
1169 \seq_new:N \g_@@_rooms
1170 \cs_new:Nn \@@_addroom:n {
1171   \seq_gpush:Nn \g_@@_rooms { #1 }
1172 }
1173 \NewDocumentCommand{\room}{m}{
1174   \@@_addroom:n { #1 }
1175 }
1176 \NewDocumentCommand{\jointrooms}{m}{
1177   \seq_use:Nn \g_@@_rooms { #1 }
1178 }
1179 \NewDocumentCommand{\roomsname}{}{
1180   \if_int_compare:w \seq_count:N \g_@@_rooms > 1
1181     \antwerpendocsprop{roomsname}
1182   \else:
1183     \antwerpendocsprop{roomname}
1184   \fi:
1185 }
1186 \AtBeginDocument{
1187   \seq_greverse:N \g_@@_rooms
1188 }
1189
1190 \ExplSyntaxOff
1191 ⟨/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.

```
1192 ⟨*ex⟩
1193 \newcommand{\@extrainfo}{}
1194 \newcommand\extrainfo[2][separatepage]{
1195   \ifthenelse{\equal{#1}{separatepage}}{
1196     % then
1197     \renewcommand{\@extrainfo}{\clearpage #2 \clearpage}
1198   }
1199   {
1200     % else
1201     \ifthenelse{\equal{#1}{firstpage}}
```

```

1202   {
1203     \renewcommand{\@extrainfo}{#2}
1204   }
1205   {
1206     \PackageError{uantwerpendocs}
1207     {The first (optional) argument of '\protect\extrainfo' can
1208      only be 'separatepage' or 'firstpage'}
1209     {See the uantwerpendocs manual}')
1210   }
1211 }
1212 }
1213 </ex>

```

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

```

1214 <*ex>
1215 \newcommand*\@studentnr{0}
1216 \newcommand*\studentnr[1]{\renewcommand*\@studentnr{#1}}
1217 </ex>

```

6.16 Dirty reverse video tricks

```

1218 <*bmt>
1219 \ExplSyntaxOn
1220 \seq_new:N \l_title_seq
1221 \cs_generate_variant:Nn \seq_set_split:Nnn { Nnf }
1222 \cs_new_nopar:Npn \@_reversevideo:f #1
1223 {
1224   \seq_set_split:Nnf \l_title_seq {~} { #1 }
1225   \seq_set_map:NNn \l_title_seq \l_title_seq {\@uantwerpendocshl{##1}}
1226   \seq_use:Nnnn \l_title_seq { ~ } { ~ } { ~ }
1227 }
1228 \NewDocumentCommand{\reversevideo}{m}{
1229   \@_reversevideo:f { #1 }
1230 }
1231 \ExplSyntaxOff
1232 </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:

```

1233 <*ct>
1234 \if@twoside
1235 \lhead[\thepage]{\slshape\rightmark}
1236 \chead[]{}
1237 \rhead[\slshape\leftmark]{\thepage}
1238 \lfoot[\uantwerpendocsprop{org-ua} -- \@facultyacronym]{\@courseversion}
1239 \cfoot[]{}
1240 \rfoot[]{\@title}\ifdefvoid{\@subtitle}{\@} { --- \@subtitle}}
1241 \else

```



```

1242 \lhead[]{\leftmark}
1243 \chead[]{}
1244 \rhead[]{\thepage}
1245 \lfoot[]{\@courseversion}
1246 \cfoot[]{UAntwerpen--\@facultyacronym}
1247 \rfoot[]{\@title{}}
1248 \fi
1249 </ct>

```

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

```

1250 <*bmt>
1251 \AtBeginDocument{
1252   \setlength{\headheight}{13.7pt}
1253   \renewcommand*{\headrulewidth}{0pt}
1254   \renewcommand*{\footrulewidth}{0pt}
1255   \newsavebox\smalllogo
1256   \savebox\smalllogo{\raisebox{-1ex}{\includegraphics[width=2.5cm]{\logopos}}}
1257   \if@twoside
1258     \lhead[]{\footnotesize\slshape\rightmark}
1259     \chead[]{}
1260     \rhead[\footnotesize\slshape\leftmark]{}
1261     \lfoot[\footnotesize\thepage~\textcolor{maincolor}{\textbf{||}}]{\usebox\smalllogo}
1262     \cfoot[\footnotesize\@bamadoctype]{\footnotesize\@bamadoctype}
1263     \rfoot[\usebox\smalllogo]{\footnotesize\textcolor{maincolor}{\textbf{||}}~\thepage}
1264   \else
1265     \lhead[]{\footnotesize\slshape\leftmark}
1266     \chead[]{}
1267     \rhead[]{}
1268     \lfoot[]{\usebox\smalllogo}
1269     \cfoot[]{\footnotesize\@bamadoctype}
1270     \rfoot[]{\footnotesize\textcolor{maincolor}{\textbf{||}}~\thepage}
1271   \fi
1272   \fancypagestyle{plain}{\pagestyle{fancy}}
1273   % \patchcmd{\chapter}{\thispagestyle{plain}}{\thispagestyle{fancy}}{}{}
1274 }
1275 </bmt>

```

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

```

1276 <*pt | rp>
1277 \if@twoside
1278   \lhead[\thepage]{\slshape\rightmark}
1279   \chead[]{}
1280   \rhead[\slshape\leftmark]{\thepage}
1281   \lfoot[]{}
1282   \cfoot[]{}
1283   \rfoot[]{}
1284 \else
1285   \lhead[]{\leftmark}
1286   \chead[]{}
1287   \rhead[]{\thepage}
1288   \lfoot[]{}
1289   \cfoot[]{}
1290   \rfoot[]{}

```

```

1291 \fi
1292 </pt | rp>

```

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

```

1293 < *le>
1294 \lhead[]{}
1295 \chead[]{}
1296 \rhead[]{}
1297 \lfoot[\small\textcolor{gray}{\@date}]{\textcolor{gray}{\@date}}
1298 \cfoot[]{}
1299 \rfoot[\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}]
1300   {\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}}
1301 </le>

```

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

```

1302 < *ex>
1303 \lhead[]{}
1304 \chead[]{}
1305 \cfoot[\small \thepage/\pageref{lastpage}]{\small\thepage/\pageref{lastpage}}
1306 \if@examiner
1307 \rhead[\small EXAMINER VERSION]{\small EXAMINER VERSION}
1308 \AddToShipoutPicture{
1309   \put(60,40){\rotatebox{60}{\textcolor{watermark}{
1310     \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}%
1311     \selectfont Examiner Version}}}}
1312 \else
1313 \rhead[\small Student nr. \@studentnr]{\small Student nr. \@studentnr}
1314 \fi
1315 </ex>

```

Some common code remains:

```

1316 < *ct>
1317 \setlength{\headheight}{13.7pt}
1318 \renewcommand*{\headrulewidth}{1pt}
1319 \renewcommand*{\footrulewidth}{1pt}
1320 \pagenumbering{arabic}
1321 </ct>
1322 < *pt | rp | le>
1323 \setlength{\headheight}{13.7pt}
1324 \renewcommand*{\headrulewidth}{0pt}
1325 \renewcommand*{\footrulewidth}{0pt}
1326 </pt | rp | le>
1327 < *ex>
1328 \setlength{\headheight}{13.7pt}
1329 \renewcommand*{\headrulewidth}{0pt}
1330 </ex>

```

Remains to take care of filling

```

1331 < *ct | mt | pt | rp | le>
1332 \if@filled\else
1333   \raggedright

```

```

1334 \fi
1335 \raggedbottom
1336 \onecolumn
1337 </ct | mt | pt | rp | le>

```

6.18 Copyright notice

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

```

1338 <*ct | rp>
1339 \newcommand{\@crnotice}{
1340   This document has been typeset using \LaTeX{} and the
1341   \texttt{uantwependocs} package.\@
1342   \@copyrightnotices
1343
1344 </ct | rp>
1345 <ct> \@courseversion
1346 <*ct | rp>
1347
1348   CONFIDENTIAL AND PROPRIETARY.
1349
1350   \copyright{} \@versionyear{} \uantwependocsprop{org-ua}, \uantwependocsprop{arr}.
1351 }
1352 </ct | rp>
1353 <*bmt>
1354 \newcommand{\@crnotice}{
1355   \@copyrightnotices
1356 }
1357 </bmt>

```

6.19 Fancy chapter headers for the phdthesis and report class

```

1358 <*pt | rp>
1359 \def\@makechapterhead#1{%
1360   \vspace*{1ex}%
1361   \begin{flushright}
1362     \makebox[0pt][l]{\rule[-0.4em]{10cm}{1.8em}}\textcolor{white}
1363     {\LARGE\textbf{~\chaptername~}}
1364     \raisebox{-24pt}{
1365       \begin{tikzpicture}
1366         \foreach \theta in {0,5,...,355} {
1367           \node[color=white] at (\theta:0.025)
1368             {\fontsize{72}{12}\selectfont\textbf{\thechapter}};
1369         }
1370         \node[color=gray] at (0,0)
1371           {\fontsize{72}{12}\selectfont\textbf{\thechapter}};
1372       \end{tikzpicture}
1373     }\hspace*{-8pt}
1374     \par\nobreak
1375     \interlinepenalty\@M

```

```

1376     \huge\textbf{\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}-#1}}
1377     \par\nobreak
1378     \end{flushright}
1379     \rule{\textwidth}{1pt}
1380     \vspace{5\p@}\par\nobreak
1381   }
1382 \def\@schapter#1{%
1383   \@makeschapterhead{#1}%
1384   \@afterheading
1385 }
1386 \def\@makeschapterhead#1{%
1387   \vspace*{1ex}%
1388   \begin{flushright}
1389     \LARGE\textbf{\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}-#1}}
1390   \end{flushright}
1391   \rule{\textwidth}{1pt}
1392   \vspace{5\p@}\par
1393 }
1394 % overwrite appendix
1395 \def\appendix{
1396   \setcounter{chapter}{0}
1397   \renewcommand*\thechapter{\Alph{chapter}}
1398   \renewcommand\chaptername\appendixname
1399 }
1400 </pt | rp)

```

6.20 Fancy chapter headers for the bamathesis class

```

1401 (*bmt)
1402 \addtokomafont{section}{\color{basecolor}}
1403 \addtokomafont{chapter}{\color{basecolor}}
1404 </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:

```

1405 (*ct)
1406 \renewcommand\maketitle{%
1407   \pagestyle{empty}
1408   \begin{titlepage}
1409     \AddToShipoutPicture*{%
1410       \put(0,0){%
1411         \if@modern
1412         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1413           \clip (0,0) rectangle(\paperwidth,\paperheight);
1414         \begin{scope}
1415           \clip (2.125,20.192) rectangle (\paperwidth,6);
1416           \fill[sidecolor]

```

```

1418         (2.125,20.192) rectangle (\paperwidth,6);
1419         \node[anchor=south west]
1420         at (2.125,6)
1421         {\ifx\@titlepageimage\@empty
1422          \else
1423           \includegraphics[keepaspectratio,
1424            scale=0.01,
1425            min size={18.875cm}{14.192cm}]{\@titlepageimage}
1426          \fi};
1427     \end{scope}
1428
1429
1430     \node
1431     [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1432     at (2.125,27)
1433     {
1434       \textsf{\textbf{\@title}}
1435     };
1436
1437     \node
1438     [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1439     at (2.125,25.5)
1440     {
1441       \textsf{\textbf{\@subtitle}}
1442     };
1443
1444     \node
1445     [anchor=base west,maincolor,text width=13.75cm,align=left,font=\LARGE]
1446     at (2.125,24)
1447     {\textsf{\textbf{\@author}}};
1448
1449
1450     \node
1451     [anchor=west,text width=13.75cm,align=left,font=\large,uauaside]
1452     at (2.125,22)
1453     {\textsf{\jointcourseswithcodes{\}}};
1454
1455     \fill[maincolor] (2.125,6)
1456     -- (\paperwidth,6)
1457     -- (\paperwidth,2.625)
1458     -- (2.55,2.625)
1459     arc (-90:-180:0.425)
1460     -- cycle;
1461
1462     \node[white,anchor=west,align=left,font=\large]
1463     (SN) at (2.55,5.1)
1464     {
1465       \begin{tabular}{@{}l@{~\,}p{14.5cm}}
1466         \textsf{\lecturersname}
1467         & \textsf{\textbf{\jointlecturers{ | }}}
1468       \end{tabular}
1469     };
1470
1471     \node[white,anchor=west,text width=17.5cm,align=left,font=\small]

```

```

1472         at (2.55,3.7)
1473         {\textsf{@degree}}\
1474         \textsf{\textbf{@faculty} | \@academicyear \hfill}
1475         \@publishercode}}\
1476         \textsf{@publisher}};
1477
1478         \node[anchor=west] at (2.125,1.313)
1479         {\includegraphics[width=4.75cm]{\logopos}};
1480     \end{tikzpicture}
1481     \else
1482     \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1483         \clip (0,0) rectangle(\paperwidth,\paperheight);
1484         \if@cameraready
1485         \else
1486         \fill[uauamain] (0,29.7) -- (2.2,29.7) -- (2.2,21.435) arc
1487         (0:-90:0.235) -- (0,21.2) -- cycle;
1488         \node[anchor=west] at (2.2,1.8)
1489         {\includegraphics[width=5.2cm]{\logoposua}};
1490         \fi
1491
1492         \node
1493         [anchor=north west,text width=14.75cm,align=left]
1494         at (5,27.1)
1495         {
1496         \fontsize{16}{20}\selectfont\textsf{\textbf{\uantwerpendocsprop{acyearname}}}\[1ex]
1497         \fontsize{16}{20}\selectfont\textsf{@academicyear}
1498         };
1499
1500         \node
1501         [anchor=north west,text width=14.75cm,align=left]
1502         at (5,22.7)
1503         {
1504         \fontsize{16}{20}\selectfont\textsf{@faculty}
1505         };
1506
1507         \node
1508         [anchor=north west,text width=14.75cm,align=left] (title)
1509         at (5,20.9)
1510         {
1511         \fontsize{24}{30}\selectfont\textsf{\textbf{@title}}\[1ex]
1512         \fontsize{18}{24}\selectfont\textsf{@subtitle}
1513         };
1514
1515         \node
1516         [anchor=north west,below=of title,
1517         text width=14.75cm,align=left,
1518         yshift=-0.5cm]
1519         {
1520         \fontsize{12}{15}\selectfont{\textsf{@degree}}
1521         };
1522
1523         \node
1524         [anchor=north west,text width=14.75cm,align=left] (title)
1525         at (5,13.3)

```

```

1526     {
1527         \fontsize{12}{15}\selectfont\textsf{\textbf{\jointlecturers{\}}}
1528     };
1529
1530     \node
1531     [anchor=north west,text width=14.75cm,align=left] (title)
1532     at (5,10)
1533     {
1534         \fontsize{12}{15}\selectfont\textsf{\jointcourseswithcodes{\}}
1535     };
1536
1537     \node[anchor=east]
1538     at (19,1.8)
1539     {
1540         \fontsize{12}{15}\selectfont\textsf{\@publishercode}
1541     };
1542
1543     \end{tikzpicture}
1544     \fi
1545 }
1546 }
1547 \end{titlepage}%
1548 ~\par\relax
1549 \clearpage
1550 \if@copyright
1551 \backgroundsetup{contents={Copyright University of Antwerp, All
1552     Rights Reserved}}
1553 \fi
1554 \vspace*{\stretch{1}}
1555 \@crnotice
1556 \clearpage
1557 \setcounter{footnote}{0}%
1558 \global\let\thanks\relax
1559 \global\let\maketitle\relax
1560 \global\let\@thanks\@empty
1561 \global\let\title\relax
1562 \global\let\author\relax
1563 \global\let\date\relax
1564 \global\let\and\relax
1565 \pagestyle{fancy}
1566 \thispagestyle{empty}
1567 }
1568 </ct>

```

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

```

1569 <*ct>
1570 \newcommand\makefinalpage{
1571     \if@cameraready
1572     \else
1573     \cleardoublepage
1574     \thispagestyle{empty}
1575     \if@copyright\NoBgThispage\fi
1576     ~% intentionally blank page

```

```

1577 \clearpage
1578 \thispagestyle{empty}
1579 \if@copyright\NoBgThispage\fi
1580 \AddToShipoutPicture*{%
1581   \put(0,0){%
1582     \if@modern
1583       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1584         \clip (0,0) rectangle(\paperwidth,\paperheight);
1585         \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
1586       \end{tikzpicture}
1587     \else
1588       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1589         \clip (0,0) rectangle(\paperwidth,\paperheight);
1590         \fill[uauamain] (0,21.2) rectangle (21,29.7);
1591       \end{tikzpicture}
1592     \fi
1593   }
1594 }
1595 ~
1596 \fi
1597 }
1598 </ct>

```

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

```

1599 (*bmt)
1600 \renewcommand\maketitle{%
1601   \pagestyle{empty}
1602   \begin{titlepage}
1603     \AddToShipoutPicture*{%
1604       \put(0,0){%
1605         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1606           \clip (0,0) rectangle(\paperwidth,\paperheight);
1607           \node
1608             [anchor=north east,align=right]
1609             at (\paperwidth-1.6cm,\paperheight-2.6cm)
1610             {\bfseries\large
1611              \quantwerpendocsprop{acyearname}\[\.75ex]\Large@academicyear};
1612           \node (title)
1613             [anchor=north west,align=left,
1614              text width=(\paperwidth-5.1cm),font=\Huge,text=white,
1615              xshift=1pt]
1616             at (3.5cm,\paperheight-6.4cm)
1617             {\sethlcolor{maincolor}%
1618              \textsf{\textbf{\reversevideo{\@title}}}\
1619              \textsf{\reversevideo{\@subtitle}}};
1620           \node
1621             [anchor=north west,font=\LARGE,yshift=-1cm,xshift=-1pt]
1622             at (title.south west)
1623             {%
1624              \textsf{\textbf{\@author}}
1625             };
1626         \end{tikzpicture}
1627       }

```



```

1628     [anchor=west,align=left,
1629     text width={\paperwidth-5.1cm},font=\normalsize]
1630     at (3.5cm,12cm)
1631     {\textsf{@bamadoctype}\%
1632     \textsf{\textbf{@degree}}
1633     };
1634
1635     \node
1636     [anchor=west,align=left,
1637     text width={\paperwidth-5.1cm},font=\normalsize]
1638     at (3.5cm,7.5cm)
1639     {\supervisorsname{\}
1640     \textbf{\jointsupervisorswithaffiliation{\}{~\{-\}}}%
1641     \cosupervisorsname{\}
1642     \textbf{\jointcosupervisorswithaffiliation{\}{~\{-\}}}%
1643     \extsupervisorsname{\}
1644     \textbf{\jointextsupervisorswithaffiliation{\}{}}}
1645     };
1646
1647     \ifx\@companylogo\@empty
1648     \else
1649     \node[anchor=south east] at
1650     (\pagewidth-1.6cm,1.5cm)
1651     {\@companylogo};
1652     \fi
1653
1654
1655     \node[anchor=south west] at
1656     (1.6cm,1.5cm)
1657     {\includegraphics[width=6.2cm]{\logopos}};
1658     \end{tikzpicture}
1659     }
1660     }
1661     \end{titlepage}%
1662     ~\par\relax
1663     \clearpage
1664     \vspace*{\stretch{1}}
1665     \@crnotice
1666     \clearpage
1667     \setcounter{footnote}{0}%
1668     \global\let\thanks\relax
1669     \global\let\maketitle\relax
1670     \global\let\@thanks\@empty
1671     \global\let\title\relax
1672     \global\let\author\relax
1673     \global\let\date\relax
1674     \global\let\and\relax
1675     \pagestyle{fancy}
1676     \thispagestyle{empty}
1677 }
1678 </bmt>

```

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

```

1679 <*bmt>
1680 \newcommand\makefinalpage{
1681 }
1682 </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:

```

1683 <*pt>
1684 \renewcommand\maketitle{%
1685   \pagestyle{empty}
1686   \begin{titlepage}
1687     \AddToShipoutPicture*{%
1688       \put(0,0){%
1689         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1690           \useasboundingbox (0,0) rectangle(\paperwidth,\paperheight);
1691           \fill[lightgray]
1692             (2.125,19) rectangle (\paperwidth+3mm,6);
1693           \begin{scope}
1694             \clip (2.125,19) rectangle (\paperwidth+3mm,6);
1695             \node[anchor=south west]
1696               at (2.125,6)
1697               {\ifx\@titlepageimage\@empty
1698                \else
1699                 \includegraphics[keepaspectratio,
1700                  scale=0.01,
1701                  min size={16.175cm}{13cm}]{\@titlepageimage}
1702                \fi};
1703           \end{scope}
1704
1705           \node
1706             [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1707             at (2.125,23.5)
1708             {
1709               \textsf{\textbf{\@title}}
1710             };
1711
1712           \node
1713             [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1714             at (2.125,21.5)
1715             {
1716               \textsf{\textbf{\@subtitle}}
1717             };
1718
1719           \node
1720             [anchor=base west,maincolor,
1721             text width=13.75cm,align=left,font=\LARGE]
1722             at (2.125,20)
1723             {\textsf{\textbf{\@author}}};

```

```

1724
1725     \fill[maincolor] (2.125,6)
1726     -- (\paperwidth+3mm,6)
1727     -- (\paperwidth+3mm,2.625)
1728     -- (2.55,2.625)
1729     arc (-90:-180:0.425)
1730     -- cycle;
1731
1732     \node[white,anchor=west,align=left,font=\large]
1733     (SN) at (2.55,4.9)
1734     {
1735         \begin{tabular}{@{}l@{~\},}p{11.5cm}}
1736         \textsf{\superscriptname{}}
1737         & \textsf{\textbf{\jointsupervisors{ | }{}}}
1738         \end{tabular}
1739     };
1740
1741
1742     \node[white,anchor=west,text width=14.5cm,align=left,font=\small]
1743     at (2.55,3.7)
1744     {\textsf{\uantwerpendocsprop{pthesisnamei}
1745         \@degree{}}}\
1746     \textsf{\textbf{\@faculty{
1747         | \@defenselocation, \@defensedate}}}};
1748
1749     \node[anchor=west] at
1750     (2.125,1.313)
1751     {\includegraphics[width=4.75cm]{\logoposua}};
1752 \end{tikzpicture}
1753 }
1754 }
1755 \end{titlepage}%
1756 ~\par\relax
1757 \cleardoublepage
1758 \begin{center}
1759 \includegraphics[width=4.75cm]{\logoposua}
1760 \vfill
1761 \@faculty\
1762 \@degree\par
1763 \vfill
1764 \Huge\textsf{\@title}\par
1765 \large\textsf{\@subtitle}\par
1766 \vfill
1767 \normalsize\uantwerpendocsprop{pthesisnamei}\
1768 \@degree\
1769 \uantwerpendocsprop{pthesisnameii}\
1770 \medskip
1771 \textbf{\@author}
1772 \vfill
1773 \begin{minipage}[b]{0.4\textwidth}
1774     \@defenselocation, \@defensedate
1775 \end{minipage}
1776 \hfill
1777 \begin{minipage}[b]{0.4\textwidth}

```

```

1778     \flushright
1779     \supervisorsname{\}
1780     \jointssupervisors{\}\{
1781     \end{minipage}
1782 \end{center}
1783 \clearpage
1784 \textbf{\uantwerpendocsprop{juryname}}\hfill\par
1785 \textbf{\uantwerpendocsprop{jurychairmanname}}\hfill\break
1786 \@jurychairman{\}\ifvoid{\@jurychairmanaff}{\}, \@jurychairmanaff{\}
1787 \hfill\break
1788 \textbf{\supervisorsname{}}\hfill\break
1789 \jointssupervisorswithaffiliation{\}\{\}
1790 \hfill\break
1791 \textbf{\uantwerpendocsprop{jurymembersname}}\hfill\break
1792 \jointjurymembers{\}
1793 \hfill\break
1794 \vfill
1795 \textbf{Contact}\}
1796 \smallskip
1797 \@author\}
1798 \@affiliation\}
1799 \@address\}
1800 \vfill
1801 \copyright{} \@defensedate{} \@author\}
1802 \uantwerpendocsprop{arr}.
1803 \vfill
1804 \begin{minipage}[b]{.5\linewidth}
1805   \ifempty{\@isbn}{\}{ISBN \@isbn}~\}
1806   \ifempty{\@depot}{\}{Wettelijk depot \@depot}~\}
1807 \end{minipage}
1808 \hfill
1809 \ifempty{\@isbn}{\}{
1810   \begin{minipage}[b]{.5\linewidth}
1811     \expandafter\EAN \@isbn
1812   \end{minipage}
1813 }
1814 \setcounter{footnote}{0}%
1815 \global\let\thanks\relax
1816 \global\let\maketitle\relax
1817 \global\let\@thanks\@empty
1818 \global\let\title\relax
1819 \global\let\author\relax
1820 \global\let\date\relax
1821 \global\let\and\relax
1822 \pagestyle{fancy}
1823 \thispagestyle{empty}
1824 \}
1825 }
1826 </pt>

```

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

```

1827 (*pt)
1828 \newcommand\makefinalpage{

```

```

1829 \cleardoublepage
1830 \thispagestyle{empty}
1831 ~% intentionally blank page
1832 \clearpage
1833 \thispagestyle{empty}
1834 \AddToShipoutPicture*{%
1835   \put(0,0){%
1836     \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1837       \useasboundingbox (0,0) rectangle (\paperwidth,\paperheight);
1838       \fill[sidecolor] (-3mm,-3mm) rectangle (2.125cm,2.625cm);
1839     \end{tikzpicture}
1840   }
1841 }
1842 ~
1843 }
1844 </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:

```

1845 <*rp>
1846 \renewcommand\maketitle{%
1847   \pagestyle{empty}
1848   \begin{titlepage}
1849     \AddToShipoutPicture*{%
1850       \put(0,0){%
1851         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1852           \clip (0,0) rectangle(\paperwidth,\paperheight);
1853           \fill[lightgray]
1854             (2.125,20.192) rectangle (\paperwidth,6);
1855           \begin{scope}
1856             \clip (2.125,20.192) rectangle (\paperwidth,6);
1857             \node[anchor=south west]
1858               at (2.125,6)
1859               {\ifx\@titlepageimage\@empty
1860                \else
1861                 \includegraphics[keepaspectratio,
1862                  scale=0.01,
1863                  min size={18.875cm}{14.192cm}]{\@titlepageimage}
1864                \fi};
1865             \end{scope}
1866
1867           \node
1868             [anchor=west,text width=17cm,align=left,font=\Huge,uauaside]
1869             at (2.125,\paperheight-3cm)
1870             {
1871               \textsf{\textbf{\@title}}
1872             };
1873

```

```

1874     \node
1875     [anchor=west,text width=17cm,align=left,font=\Large,uauaside]
1876     at (2.125,\paperheight-5cm)
1877     {
1878     \textsf{\textbf{\@subtitle}}
1879     };
1880
1881     \node
1882     [anchor=base west,maincolor,
1883     text width=17cm,align=left,font=\LARGE]
1884     at (2.125,\paperheight-6.5cm)
1885     {\textsf{\textbf{\@author}}};
1886
1887     \fill[maincolor] (2.125,6)
1888     -- (\paperwidth,6)
1889     -- (\paperwidth,2.625)
1890     -- (2.55,2.625)
1891     arc (-90:-180:0.425)
1892     -- cycle;
1893
1894     \node[white,anchor=west,text width=17cm,align=left,font=\small]
1895     at (2.55,5.3)
1896     {\textsf{\textbf{\@extra}}};
1897
1898     \node[white,anchor=west,text width=17cm,align=left,font=\small]
1899     at (2.55,4)
1900     {\textsf{\textbf{\@affiliation}
1901     | \@versionyear}\@address}};
1902
1903
1904     \node[anchor=west] at
1905     (2.125,1.313)
1906     {\includegraphics[width=4.75cm]{\logopos}};
1907 \end{tikzpicture}
1908 }
1909 }
1910 \end{titlepage}%
1911 ~\par\relax
1912 \cleardoublepage
1913 \begin{center}
1914 \includegraphics[width=4.75cm]{\logopos}
1915 \vfill
1916 \@affiliation\\
1917 \@extra\par
1918 \vfill
1919 \Huge\textsf{\@title}\par
1920 \large\textsf{\@subtitle}\par
1921 \vfill
1922 \textbf{\@author}
1923 \vfill
1924 \end{center}
1925 \clearpage
1926 \vfill
1927 \textbf{Contact}\\

```

```

1928 \smallskip
1929 \@author\\
1930 \@affiliation\\
1931 \@address\\
1932 \vfill
1933 \copyright{} \@versionyear{} \@author\\
1934 \uantwerpendocsprop{arr}.
1935 \vfill
1936 \setcounter{footnote}{0}%
1937 \global\let\thanks\relax
1938 \global\let\maketitle\relax
1939 \global\let\@thanks\@empty
1940 \global\let\title\relax
1941 \global\let\author\relax
1942 \global\let\date\relax
1943 \global\let\and\relax
1944 \pagestyle{fancy}
1945 \thispagestyle{empty}
1946 \
1947 }
1948 </rp>

```

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

```

1949 <rp>
1950 \newcommand\makefinalpage{
1951 \cleardoublepage
1952 \thispagestyle{empty}
1953 ~% intentionally blank page
1954 \clearpage
1955 \thispagestyle{empty}
1956 \begin{tikzpicture}[remember picture,overlay]
1957 \node at (current page.center) {
1958 \begin{tikzpicture}[inner sep=0pt]
1959 \clip (0,0) rectangle(\paperwidth,\paperheight);
1960 \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
1961 \end{tikzpicture}
1962 };
1963 \end{tikzpicture}
1964 }
1965 </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.

```

1966 <le>
1967 \newcommand\maketitle{%
1968 \pagestyle{fancy}
1969 \thispagestyle{empty}

```

```

1970 \AddToShipoutPicture*{%
1971   \put(0,0){%
1972     \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1973       \clip (0,0) rectangle(\paperwidth,\paperheight);
1974       \path (current page.north west) +(1.8cm,-1.2cm)
1975         node[anchor=north west] {
1976           \includegraphics[height=1.1cm]{\@logo}
1977         };
1978       \if@nofoldline\else
1979         \draw (current page.north west)
1980           +(1cm,-98mm) -- +(1.5cm,-98mm);
1981       \fi
1982       % 90 x 45
1983       % pos: 20mm van kant, 15mm van onderkant
1984       \path (current page.north east) +(-100mm,-65mm)
1985         node[anchor=west,text width=80mm,align=left] {
1986           \scriptsize\textcolor{gray}{\uline{\@returnaddress}}\}*
1987           \normalsize\@to\}*
1988           \ifx\@toorganization\@empty\else\@toorganization\}* \fi%
1989           \@toaddress
1990         };
1991       \end{tikzpicture}
1992     }
1993   }
1994   ~\}[3ex]
1995   \textcolor{uauaside}{\textbf{\@sender}}
1996   \ifx\@senderrole\@empty\}[1.75ex]\else \}* \@senderrole\}[1.75ex]\fi
1997   \@faculty
1998   \ifx\@unit\@empty\else\}* \@unit\fi~\}[1.75ex]
1999   \@address\}[1.75ex]
2000   \ifemails{E~\jointemails{\phantom{E~}}\}
2001   \ifphones{T~\jointphones{\phantom{T~}}\}
2002   \iffaxes{F~\jointfaxes{\phantom{F~}}\}
2003   \ifmobiles{M~\jointmobiles{\phantom{M~}}\}
2004   ~\}[4ex]
2005   \begin{tikzpicture}[anchor=north west,align=left,outer sep=0,inner sep=0]
2006     \path
2007       (0,0) node { \scriptsize \strut
2008         \textcolor{gray}{\uppercase\expandafter{\uantwerpendocsprop{datename}}} } }
2009       (4cm,0) node { \scriptsize \strut
2010         \textcolor{gray}{\uppercase\expandafter{\uantwerpendocsprop{subjectname}}} } }
2011       (0,-2.5ex) node { \strut \@date }
2012       (4cm,-2.5ex) node[align=left] { \strut \@subject };
2013   \end{tikzpicture}~\}[4ex]
2014 }
2015 \le)

```

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

```

2016 (*le)
2017 \AtEndDocument{
2018   \closing\}* [3ex] \@signature~\}[3ex]
2019   \@sender
2020   \ifx\@senderrole\@empty\}[8ex]\else\}* \@senderrole\}[8ex]\fi

```



```

2021 \setlength{\parskip}{0em}
2022 \ifx\@carboncopy\@empty\else CC: \@carboncopy\[\[4ex]\fi
2023 \ifx\@enclosed\@empty\else ENCL: \@enclosed\fi
2024 \label{lastpage}
2025 }
2026 \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.

```

2027 (*ex)
2028 \renewcommand\maketitle{%
2029 \pagestyle{fancy}
2030 \AddToShipoutPicture*{%
2031 \put(0,0){%
2032 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2033 \clip (0,0) rectangle(\paperwidth,\paperheight);
2034 \fill[lightgray]
2035 (2.125,{\paperheight-7cm}) rectangle (\paperwidth,6);
2036
2037 \node
2038 [anchor=west,text width={\paperwidth-5cm},align=left]
2039 at (2.125,{\paperheight-3cm})
2040 {%
2041 \fontfamily{phv}\fontsize{18}{22}\fontseries{b}%
2042 \fontshape{n}\selectfont%
2043 \@course{}
2044 \ifx\@exampart\@empty
2045 \else --- \@exampart\fi
2046 };
2047 \node
2048 [anchor=west,text width={\paperwidth-5cm},align=left]
2049 at (2.125,{\paperheight-4cm})
2050 {%
2051 \fontfamily{phv}\fontsize{12}{18}\fontseries{b}%
2052 \fontshape{n}\selectfont%
2053 \@coursecode
2054 };
2055
2056 \node
2057 [anchor=west,text width={\paperwidth-5cm},align=left,font=\large]
2058 at (2.125,{\paperheight-5cm})
2059 {%
2060 \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2061 \fontshape{n}\selectfont%
2062 \uantwerpendocscprop{seriesname} \@examgroupnumber{} \hfill \@examdate{}
2063 };
2064
2065 \node[anchor=south west,align=left,inner sep=0pt] at (3,21)

```

```

2066     {%
2067     \fontfamily{phv}\fontsize{14}{19}\fontseries{b}%
2068     \fontshape{n}\selectfont%
2069     \uantwerpendocsprop{examname}
2070     };
2071
2072     \node[anchor=south west,align=left,inner sep=0pt] at (3,19)
2073     {%
2074     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2075     \fontshape{n}\selectfont%
2076     \uantwerpendocsprop{lastname}
2077     };
2078     \foreach \nn in {0,1,...,33} {
2079     \draw[fill=white] (3,18) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2080     }
2081
2082     \node[anchor=south west,align=left,inner sep=0pt] at (3,17)
2083     {%
2084     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2085     \fontshape{n}\selectfont%
2086     \uantwerpendocsprop{firstname}
2087     };
2088
2089     \foreach \nn in {0,1,...,23} {
2090     \draw[fill=white] (3,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2091     }
2092
2093     \node[anchor=south west,align=left,inner sep=0pt] at (16,17)
2094     {%
2095     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}%
2096     \fontshape{n}\selectfont%
2097     \uantwerpendocsprop{docketname}
2098     };
2099     \foreach \nn in {0,1,...,7} {
2100     \draw[fill=white] (16,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2101     }
2102
2103     \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2104     at (3,14)
2105     {%
2106     \fontfamily{phv}\fontsize{12}{21}\fontseries{m}%
2107     \fontshape{n}\selectfont%
2108     \uantwerpendocsprop{examdurationname}: \@examlength
2109     };
2110     \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2111     at (3,11)
2112     {%
2113     \fontfamily{phv}\fontsize{12}{15}\fontseries{m}%
2114     \fontshape{n}\selectfont%
2115     \begin{tabular}{@{}l@{}}
2116     \uantwerpendocsprop{examstartname}& : & \@tstart\\
2117     \uantwerpendocsprop{examendname} & : & \@tend
2118     \end{tabular}
2119     };

```

```

2120
2121 \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2122 at (3,8)
2123 {%
2124 \fontfamily{phv}\fontsize{12}{21}\fontseries{m}%
2125 \fontshape{n}\selectfont%
2126 \roomsname: \jointrooms{, }
2127 };
2128
2129 \node
2130 [anchor=base west,uauamain,
2131 text width={\paperwidth-5cm},align=left,font=\LARGE]
2132 at (2.125,{\paperheight-6.5cm})
2133 {\textsf{\textbf{\@author}}};
2134
2135 \fill[gray] (2.125,6)
2136 -- (\paperwidth,6)
2137 -- (\paperwidth,2.625)
2138 -- (2.55,2.625)
2139 arc (-90:-180:0.425)
2140 -- cycle;
2141
2142 \node[white,anchor=west,align=left,font=\large]
2143 (SN) at (2.55,4.9)
2144 {
2145 \begin{tabular}{@{}l@{~\,}p{14.5cm}}
2146 \textsf{\lecturersname}
2147 & \textsf{\textbf{\jointlecturers{ | }}}
2148 \end{tabular}
2149 };
2150
2151 \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
2152 at (2.55,3.7)
2153 {\textsf{\@degree{}}\}
2154 \textsf{\textbf{\@faculty{}}}};
2155
2156 \node[anchor=west] at (2.125,1.313)
2157 {\includegraphics[width=4.75cm]{\logopos}};
2158 \end{tikzpicture}
2159 }
2160 }
2161 ~\par\relax
2162 \clearpage
2163 \lfoot[\small \@shorttitle]{\small \@shorttitle}
2164 \rfoot[\small Groep \@examgroupnumber{} ---
2165 \@academicyear]{\small Groep \@examgroupnumber{} --- \@academicyear}
2166 \renewcommand*{\footrulewidth}{1pt}
2167 }
2168 </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).

```
2169 <*ex>
2170 \newcounter{question}
2171 \setcounter{question}{0}
2172 \renewcommand*\thequestion{\@arabic\c@question}
2173 \newcommand{\question}[1]{
2174   \stepcounter{question}
2175   \thequestion.~#1%
2176 }
2177 </ex>
```

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

```
2178 <*ex>
2179 \newcommand*\questionweight[1]{%
2180   \hspace{\fill}
2181   \begin{tabular}{|c|}
2182     \hline
2183     \small \uantwerpendocsprop{weightname}: #1\\
2184     \hline
2185   \end{tabular}\\
2186 }
2187 </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.

```
2188 <*ex>
2189 \newcommand{\engdut}[2]{%
2190   \begin{tabular}{ccc}%
2191     \selectlanguage{english}%
2192     \begin{minipage}[t]{0.45\textwidth}%
2193       #1
2194     \end{minipage}%
2195     &~~~&
2196     \selectlanguage{dutch}%
2197     \begin{minipage}[t]{0.45\textwidth}%
2198       #2
2199     \end{minipage}%
2200   \end{tabular}
2201   \selectlanguage{english}%
2202 }
2203 </ex>
```

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

```
2204 <*ex>
2205 \newcommand*\@mcsymbol{\square}
2206 \newcommand*\setmcsymbol[1]{\renewcommand\@mcsymbol{#1}}
2207 </ex>
```

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

```
2208 (*ex)
2209 \newcommand\mc[1]{%
2210   \hfill\break\qqquad\begin{tabular}{cc}
2211     $@\mcsymbol$
2212     &
2213     \begin{minipage}[t]{0.9\textwidth}%
2214       #1
2215     \end{minipage}%
2216   \end{tabular}
2217   }
2218 </ex>
```

`\engdumc` 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.

```
2219 (*ex)
2220 \newcommand\engdumc[2]{%
2221   \hfill\break\begin{tabular}{cccc}
2222     $@\mcsymbol$
2223     &
2224     \selectlanguage{english}%
2225     \begin{minipage}[t]{0.42\textwidth}%
2226       #1
2227     \end{minipage}%
2228     &---&
2229     \selectlanguage{dutch}%
2230     \begin{minipage}[t]{0.42\textwidth}%
2231       #2
2232     \end{minipage}%
2233   \end{tabular}
2234   \selectlanguage{english}%
2235   }
2236 </ex>
```

`\insertsolutionspagepartial` fills the remainder of the page with 'fill-out' squares. as observing/controlling the current line position in \LaTeX 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.

```
2237 (*ex)
2238 \newcommand\insertsolutionspagepartial[1]{
2239   ~\relax
2240   \AddToShipoutPicture*{%
2241     \put(0,0){%
2242       \begin{tikzpicture}
2243         \clip (0,0) rectangle (21,#1);
2244         \draw[densely dotted, step=0.5cm,black!20] (0.999,0.990) grid (20,1.5);
2245         \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
2246         \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
2247
2248         \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,27);
2249         \draw[densely dotted, step=0.5cm,black!20] (0.999,27) grid (16,28);
```

```

2250 \draw[densely dotted, step=0.5cm,black!20] (19.499,27) grid (20,28);
2251 \draw[densely dotted, step=0.5cm,black!20] (0.99,27.999) grid
2252 (20,28.5);
2253 \draw[ultra thick] (1,#1) -- (20,#1);
2254 \end{tikzpicture}
2255 }
2256 }%
2257 \clearpage
2258 \relax
2259 }
2260 </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').

```

2261 <*ex>
2262 \newcommand\insertsolutionspage[1]{
2263   \clearpage
2264   \AddToShipoutPicture*{%
2265     \put(0,0){%
2266       \begin{tikzpicture}
2267         \clip (0,0) rectangle (21,29.5);
2268         \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
2269         \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
2270
2271         \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,28);
2272         \draw[densely dotted, step=0.5cm,black!20] (0.999,28) grid (16,28.5);
2273         \draw[densely dotted, step=0.5cm,black!20] (19.499,28) grid (20,28.5);
2274       \end{tikzpicture}
2275     }
2276     \put(120,150){\rotatebox{60}{\textcolor{watermark}{
2277       \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}\selectfont
2278       #1}
2279     }
2280   }
2281 }%
2282 ~\relax
2283 }
2284 </ex>

```

We add a lastpage label to the final page

```

2285 <*ex>
2286 \AtEndDocument{
2287   \label{lastpage}
2288 }
2289 </ex>
2290 % \end{macrocode}
2291 %
2292 % \subsection{References}
2293 % \begin{macrocode}
2294 <*ct | bmt | pt | rp>

```

```

2295 \AtBeginDocument{
2296   \@ifpackageloaded{hyperref}{
2297     \hypersetup{
2298       breaklinks=true,
2299       colorlinks=true,
2300       citecolor=black,
2301       filecolor=black,
2302       linkcolor=black,
2303       pageanchor=true,
2304       pdfpagemode=UseOutlines,
2305       urlcolor=black,
2306       pdftitle={\@title},
2307       pdfsubject={\@subtitle},
2308       pdfauthor={\@author}
2309     }
2310   }{}
2311 }
2312 </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).
  \end{itemize}

```

```

\item The graphic option has many variants that we will discuss later.
\end{itemize}
\end{frame}

```

```

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

```

```

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

```

```

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

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

```

```

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

```

```

\end{frame}

```

```

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

```

```

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

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

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

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

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

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

```

```

\end{frame}

\subsection{With graphic eye candy}

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

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

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

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

\end{frame}

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

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

  \subheading{Remarks}

```

```

\begin{itemize}
\item Load photo as:\\
  \command{includegraphics}[width=0.25\command{paperwidth}, min height=\command{textheight}]
  \{image.jpg\}
\item If \texttt{rqgraphic} is specified without argument, a standard photo
  is loaded.
\item Note: you can avoid rounding the corner using the
  frame option \texttt{noround} (may be useful when not using a photo)
\end{itemize}
\end{13qframe}

\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]\
\ind\command{place} at (0.5,0.5) \{\command{uantwerpenicon[scale=0.8]}\}\
\eframe
\end{codesnippet}
\medskip

```

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

```

\end{frame}

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

```

```

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

```

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

```

To this end you can use the following command\[[1ex]
\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{uantwerpenallout}\{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) {
  \antwerpencallout{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{antwerpencallout}` 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{antwerpencallout}[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{antwerpencallout}` command has the following syntax:\[1ex]
`\quad\command{antwerpencallout}[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) {
    \antwerpencallout[fill opacity=0.5]{4.5}{2.5}{
      \bfseries I'll be back!\[1ex]
      Arnold Schwarzenegger}
    }
\end{frame}

```

```

\section{Demo of some inner theme parts}

```

```

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

```

```

\begin{frame}[t]
  {Headings}
  {on two levels}
  You can set headings on two levels, by using

```

```

\begin{itemize}
\item\command{heading\{\}}
\item\command{subheading\{\}}
\end{itemize}
\heading{Main subject}~\
blabla
\subheading{Subtopic 1}~\
blabla
\subheading{Subtopic 2}~\
blabla
\heading{Next main subject}~\
blabla
\end{frame}

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

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

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

\begin{columns}
\column[T]{0.3\textwidth}
\alert{ball}

```

```

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

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

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

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

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

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

```

```

\ind\command{renewcommand*}\command{logomonowhite\{your-mono-logo-filename-
here\}}\
\ind\command{renewcommand*}\command{iconfile\{your-icon-filename-here\}}\
\ind\command{colorlet\{maincolor\}\{your-favorite-color\}}\
\ind\command{colorlet\{sidecolor\}\{your-secondfavorite-color\}}\
\ind\command{colorlet\{basecolor\}\{some-solid-color\}}\
\}
\end{codesnippet}-\[[lex]
\end{frame}

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

Dear user,

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

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

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

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

Cheers!

Walter Daems\
(March 2021)

\end{frame}

\end{document}
</bmrug>

```

7.2 Implementation

7.2.1 Main beamer theme

```

2313 (*bmr)
2314 %      Copyright 2021 by Walter Daems <walter.daems@uantwerpen.be>
2315 %
2316 %      This file may be distributed and/or modified
2317 %
2318 %      1. under the LaTeX Project Public License and/or

```

```

2319 %      2. under the GNU Public License.
2320 %
2321 %      See the file doc/licenses/LICENSE for more details.
2322
2323 \newif\if@nofonts
2324 \@nofontsfalse
2325 \DeclareOption{nofonts}{\@nofontstrue}
2326
2327 \input{uantwerpencommonoptions.clo}
2328
2329 \ProcessOptions
2330
2331 \RequirePackage{uantwerpencolorlogoscheme}
2332
2333 \AtBeginDocument{
2334   \def\appropriatelogo{\logopos}
2335   \def\appropriateslidenumber{%
2336     \usebeamercolor{pageno in head/foot}%
2337     \insertframenumber/\inserttotalframenumber}%
2338 }
2339
2340 \mode<presentation>
2341
2342 \RequirePackage{tikz}
2343 \RequirePackage{graphicx}
2344 \RequirePackage[export]{adjustbox}
2345 \RequirePackage{environ}
2346
2347 \setbeamersize{
2348   text margin left=.8cm,
2349   text margin right=.8cm
2350 }
2351
2352 \usecolortheme{uantwerpen}
2353 \usefonttheme{uantwerpen}
2354 \useinnertheme{uantwerpen}
2355 \useoutertheme{uantwerpen}
2356
2357 \setbeamertemplate{navigation symbols}{}
2358 \setbeamertemplate{blocks}[rounded][shadow=true]
2359
2360 \mode
2361 <all>
2362 </bmr>

```

7.2.2 Beamer color theme

```

2363 (*bmrcolor)
2364 %      Copyright 2021 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 \mode<presentation>
2374
2375 \RequirePackage{uantwerpcolorlogoscheme}
2376
2377 %% define main color
2378 \setbeamercolor{palette primary}{fg=maincolor}
2379 \setbeamercolor{palette secondary}{fg=sidecolor}
2380 \setbeamercolor{palette tertiary}{fg=uauaside}
2381 \setbeamercolor{palette quaternary}{fg=uauamain}
2382
2383 \setbeamercolor{normal text}{fg=basecolor}
2384 \setbeamercolor{inverse normal text}{fg=white!95!maincolor}
2385 \setbeamercolor{alerted text}{fg=uauamain}
2386 \setbeamercolor{example text}{}
2387
2388 \setbeamercolor{heading}{fg=basecolor}
2389 \setbeamercolor{subheading}{fg=basecolor}
2390 \setbeamercolor{inverse heading}{fg=white}
2391 \setbeamercolor{inverse subheading}{fg=white!75!maincolor}
2392
2393 \setbeamercolor{block body}{bg=black!4}
2394 \setbeamercolor{block title}{bg=black!8,fg=maincolor}
2395 \setbeamercolor{block body example}{bg=black!4}
2396 \setbeamercolor{block title example}{bg=black!8}
2397 \setbeamercolor{block body alerted}{bg=black!4}
2398 \setbeamercolor{block title alerted}{bg=black!8}
2399
2400 \setbeamercolor{itemize item}{parent=normal text}
2401 \setbeamercolor{enumerate item}{parent=normal text}
2402 \setbeamercolor{itemize subitem}{parent=normal text}
2403 \setbeamercolor{enumerate subitem}{parent=normal text}
2404 \setbeamercolor{itemize subsubitem}{parent=normal text}
2405 \setbeamercolor{enumerate subsubitem}{parent=normal text}
2406
2407 \setbeamercolor{frametitle}{fg=maincolor}
2408 \setbeamercolor{framesubtitle}{fg=sidecolor}
2409 \setbeamercolor{inverse frametitle}{fg=white}
2410 \setbeamercolor{inverse framesubtitle}{fg=white!80!maincolor}
2411
2412 \setbeamercolor{title in title page}{fg=maincolor}
2413 \setbeamercolor{subtitle in title page}{fg=sidecolor}
2414 \setbeamercolor{author in title page}{fg=maincolor}
2415 \setbeamercolor{date in title page}{fg=sidecolor}
2416 \setbeamercolor{inverse title in title page}{fg=white}
2417 \setbeamercolor{inverse subtitle in title page}{fg=white!75!maincolor}
2418 \setbeamercolor{inverse author in title page}{fg=white}
2419 \setbeamercolor{inverse date in title page}{fg=white!75!maincolor}
2420
2421 \setbeamercolor{pageno in head/foot}{fg=basecolor}
2422 \setbeamercolor{inverse pageno in head/foot}{fg=white}
2423

```



```

2424 \setbeamercolor{section in toc}{fg=basecolor}
2425 \setbeamercolor{subsection in toc}{fg=basecolor}
2426 \setbeamercolor{section number projected}{fg=white,bg=basecolor}
2427 \setbeamercolor{subsection number projected}{fg=white,bg=basecolor}
2428
2429 \setbeamercolor{section title}{fg=maincolor}
2430 \setbeamercolor{section name}{fg=maincolor}
2431 \setbeamercolor{inverse section title}{fg=white}
2432 \setbeamercolor{inverse section name}{fg=white}
2433
2434 \setbeamercolor{subsection title}{fg=sidecolor}
2435 \setbeamercolor{subsection name}{fg=sidecolor}
2436 \setbeamercolor{inverse subsection title}{fg=white!75!maincolor}
2437 \setbeamercolor{inverse subsection name}{fg=white!75!maincolor}
2438 \mode
2439 <all>
2440 </bmrcolor>

```

7.2.3 Beamer font theme

```

2441 (*bmrfont)
2442 %      Copyright 2021 by Walter Daems
2443 %
2444 %      This file may be distributed and/or modified
2445 %
2446 %      1. under the LaTeX Project Public License and/or
2447 %      2. under the GNU Public License.
2448 %
2449 %      See the file doc/licenses/LICENSE for more details.
2450
2451 \usetikzlibrary{calc}
2452
2453 \if@nofonts
2454 \else
2455 \RequirePackage{iftex}
2456 % Uncomment the following line if in MiKTeX you get the error
2457 % message that \ifluatex is already defined.
2458 % You first option is to update all your packages both in user as in
2459 % admin mode to fix your setup.
2460 % Your second option is to avoid the warning uncommenting the
2461 % following line:
2462 % \let\ifluatex\relax
2463 \iftutex
2464   \usepackage{cmbright}
2465   \usefonttheme{serif}
2466   \usepackage{fontspec}
2467   \setmainfont{Calibri}
2468   \usepackage{sansmathaccent}
2469 \fi
2470 \fi
2471 \usepackage{bm}
2472
2473 \mode<presentation>
2474

```

```

2475 \setbeamerfont{normal text}{} % ignored currently
2476 \setbeamerfont{alerted text}{}
2477 \setbeamerfont{example text}{}
2478
2479 \setbeamerfont{structure}{}
2480 \setbeamerfont{tiny structure}{size=\tiny}
2481
2482 \setbeamerfont{title}{size=\large,parent=structure}
2483 \setbeamerfont{title in head/foot}{}
2484 \setbeamerfont{title in sidebar}{size=\tiny}
2485
2486 \setbeamerfont{pageno in head/foot}{size=\tiny}
2487
2488 \setbeamerfont{subtitle}{size=\small,parent=title}
2489
2490 \setbeamerfont{author}{}
2491 \setbeamerfont{author in head/foot}{}
2492 \setbeamerfont{author in sidebar}{size=\tiny}
2493
2494 \setbeamerfont{date}{}
2495 \setbeamerfont{date in head/foot}{}
2496 \setbeamerfont{date in sidebar}{}
2497
2498 \setbeamerfont{part name}{size=\LARGE}
2499 \setbeamerfont{part title}{size=\LARGE,parent=title}
2500
2501 \setbeamerfont{section name}{size=\Large}
2502 \setbeamerfont{section title}{size=\Large,parent=title}
2503
2504 \setbeamerfont{section in toc}{parent=structure}
2505 \setbeamerfont{section in toc shaded}{parent=section in toc}
2506 \setbeamerfont{section in head/foot}{}
2507 \setbeamerfont{section in sidebar}{size=\tiny}
2508 \setbeamerfont{section number projected}
2509 {size=\small,parent={section in toc,projected text}}
2510
2511 \setbeamerfont{subsection name}{size=\large}
2512 \setbeamerfont{subsection title}{size=\large,parent=title}
2513
2514 \setbeamerfont{subsection in toc}{}
2515 \setbeamerfont{subsection in toc shaded}{parent=subsection in toc}
2516 \setbeamerfont{subsection in head/foot}{}
2517 \setbeamerfont{subsection in sidebar}{}
2518
2519 \setbeamerfont{subsubsection in toc}{size=\footnotesize}
2520 \setbeamerfont{subsubsection in toc shaded}{parent=subsubsection in toc}
2521 \setbeamerfont{subsubsection in head/foot}{}
2522 \setbeamerfont{subsubsection in sidebar}{}
2523
2524 \setbeamerfont{headline}{parent={tiny structure}}
2525 \setbeamerfont{footline}{parent={tiny structure}}
2526
2527 \setbeamerfont{frametitle}
2528 {parent=structure,size=\renewcommand*{\baselinestretch}{0.85}\LARGE\bfseries}

```

```

2529 \setbeamerfont{framesubtitle}{parent=frametitle,size=\normalsize\bfseries}
2530
2531 \setbeamerfont{caption}{size=\small}
2532 \setbeamerfont{caption name}{parent={structure,caption}}
2533
2534 \setbeamerfont{button}{size=\tiny}
2535
2536 \setbeamerfont{block body}{size=\scriptsize}
2537 \setbeamerfont{block body alerted}{parent={block body}}
2538 \setbeamerfont{block body example}{parent={block body}}
2539 \setbeamerfont{block title}{size=\small,series=\bfseries,parent={structure,block body}}
2540 \setbeamerfont{block title alerted}{parent={block title>alerted text}}
2541 \setbeamerfont{block title example}{parent={block title,example text}}
2542
2543 \setbeamerfont{item}{parent=structure}
2544 \setbeamerfont{subitem}{parent=item}
2545 \setbeamerfont{subsubitem}{parent=subitem}
2546
2547 \setbeamerfont{item projected}{size=\tiny,parent={item,projected text}}
2548 \setbeamerfont{subitem projected}{parent=item projected}
2549 \setbeamerfont{subsubitem projected}{parent=subitem projected}
2550
2551 \setbeamerfont{itemize item}{parent=item}
2552 \setbeamerfont{itemize subitem}{parent=subitem}
2553 \setbeamerfont{itemize subsubitem}{parent=subsubitem}
2554
2555 \setbeamerfont{enumerate item}{parent=item}
2556 \setbeamerfont{enumerate subitem}{parent=subitem}
2557 \setbeamerfont{enumerate subsubitem}{parent=subsubitem}
2558
2559 \setbeamerfont{itemize/enumerate body}{}
2560 \setbeamerfont{itemize/enumerate subbody}{size=\small}
2561 \setbeamerfont{itemize/enumerate subsubbody}{size=\footnotesize}
2562
2563 \setbeamerfont{description item}{parent=item}
2564
2565 \setbeamerfont{projected text}{parent={tiny structure}}
2566
2567 \setbeamerfont{abstract}{size=\small}
2568 \setbeamerfont{abstract title}{parent={abstract,structure},size=\normalsize}
2569
2570 \setbeamerfont{verse}{family=\rmfamily,shape=\itshape}
2571
2572 \setbeamerfont{quotation}{shape=\itshape}
2573 \setbeamerfont{quote}{parent=quotation}
2574
2575 \setbeamerfont{note page}{size=\small}
2576
2577 \mode
2578 <all>
2579 </bmrfont>

```

7.2.4 Beamer inner theme

```

2580 (*bmrinner)
2581 % Copyright 2021 by Walter Daems <walter.daems@uantwerpen.be>
2582 %
2583 % This file may be distributed and/or modified
2584 %
2585 % 1. under the LaTeX Project Public License and/or
2586 % 2. under the GNU Public License.
2587 %
2588 % See the file doc/licenses/LICENSE for more details.
2589
2590 \mode<presentation>
2591
2592 \setlength\parskip{0.5\baselineskip}
2593 \setlength\parindent{0em}
2594
2595 % use square (can also be circle or ball
2596 \setbeamertemplate{sections/subsections in toc}[square]
2597 \setbeamertemplate{itemize items}[square]
2598
2599 %\setbeamertemplate{description item}[align left]
2600
2601 \newif\if@noround
2602 \@noroundfalse
2603
2604 \newcommand*\uantwerpenleftshape[3] []{
2605   \newcommand\mycradius{0.05*(\getlength{\paperheight}-1.6)}%
2606   \coordinate (bl) at #2;
2607   \coordinate (tr) at #3;
2608   \if@noround
2609     \path[#1] (bl) rectangle (tr);
2610   \else
2611     \path[#1] (bl|-tr) -- (tr) -- (bl|tr) -- ($ (bl)+(\mycradius),0)$
2612     arc(-90:-180:\mycradius) -- cycle;
2613   \fi
2614 }
2615 \newcommand*\uantwerpenrightshape[3] []{
2616   \newcommand\mycradius{0.05*(\getlength{\paperheight}-1.6)}%
2617   \coordinate (bl) at #2;
2618   \coordinate (tr) at #3;
2619   \if@noround
2620     \path[#1] (bl) rectangle (tr);
2621   \else
2622     \path[#1] (bl|-tr) -- (tr) -- ($ (bl|-tr)+(0,\mycradius)$)
2623     arc(0:-90:\mycradius) -- (bl) -- cycle;
2624   \fi
2625 }
2626
2627 \newcommand*\darken[2] [0.5] {%
2628   \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2629     \node (a) {#2};
2630     \fill[fill=black,opacity=#1] (a.south west) rectangle (a.north east);
2631   \end{tikzpicture}
2632 }
2633

```

```

2634 \newcommand\uantwerpenallout[4] []{
2635   \begin{tikzpicture}
2636     \uantwerpenleftshape[fill=black,fill opacity=0.0,text opacity=1,text=white,#1]{(-
      #2/2},-{\#3/2})}{({#2/2},{#3/2})}
2637     \node[align=left,anchor=center] at (0,0) { \callout\ #4 };
2638   \end{tikzpicture}
2639 }
2640
2641 \newcommand\callout[1] [scale=0.70711]{
2642   \begin{tikzpicture}[#1]
2643     \fill[maincolor] (0.4,0) -- (0.5,0) -- (0.75,-0.15) -- (0.75,0) --
2644     (0.9,0) arc(-90:0:0.1) -- (1,0.65) arc(0:90:0.1) -- (0.1,0.75) arc
2645     (90:180:0.1) -- (0,0.1) arc(-180:-90:0.1) -- cycle;
2646     \foreach \x in {0.35,0.7} {
2647       \begin{scope}[shift={(\x,0.425)},scale=0.25]
2648         \fill[white] (0,0) circle[radius=0.5];
2649         \fill[white] (0.5,0) arc(0:-90:1) --
2650         (-0.5,-0.725) arc(-90:0:0.725) -- cycle;
2651       \end{scope}
2652     }
2653   \end{tikzpicture}
2654 }
2655
2656 \newcommand*\uantwerpenicon[1] [scale=1]{
2657   \includegraphics[#1]{\iconfile}
2658 }
2659
2660 \newcommand\heading[1]{\par{\usebeamercolor{\maybeinverse heading}\color{fg}{\small\bfseries #
2661 \newcommand\subheading[1]{\par{
2662   \usebeamercolor{\maybeinverse
2663     subheading}\color{fg}{\footnotesize\it\bfseries #1~}}}
2664
2665 \mode
2666 <all>
2667 </bmrinner>

```

7.2.5 Beamer outer theme

```

2668 (*bmrouter)
2669 % Copyright 2021 by Walter Daems <walter.daems@uantwerpen.be>
2670 %
2671 % This file may be distributed and/or modified
2672 %
2673 % 1. under the LaTeX Project Public License and/or
2674 % 2. under the GNU Public License.
2675 %
2676 % See the file doc/licenses/LICENSE for more details.
2677
2678 \mode<presentation>
2679
2680 \newcommand*\getlength[1]{\strip@pt#1/28.45274}
2681 \newcommand*\pw{\getlength{\paperwidth}}%
2682 \newcommand*\ph{\getlength{\paperheight}}%
2683

```

```

2684 \newif\if@rhtext
2685 \@rhtextfalse
2686 \newif\if@lhtext
2687 \@lhtextfalse
2688 \newif\if@rqttext
2689 \@rqttextfalse
2690 \newif\if@lqttext
2691 \@lqttextfalse
2692 \newif\if@bhtext
2693 \@bhtextfalse
2694 \gdef\maybeinverse{}
2695
2696 \define@key{beamerframe}{noround}[true]{
2697   \expandafter\csname @noround#1\endcsname
2698 }
2699
2700 \define@key{beamerframe}{normal}[true]{
2701   \setbeamertemplate{title page}[main]
2702   \setbeamertemplate{section page}[main]%
2703   \setbeamertemplate{subsection page}[main]%
2704   \setbeamertemplate{background canvas}[normal]
2705   \gdef\maybeinverse{}
2706 }
2707
2708 \mode<handout|trans>
2709
2710 \define@key{beamerframe}{negativefill}[true]{
2711 }
2712
2713 \define@key{beamerframe}{negative}[true]{
2714 }
2715
2716 \mode
2717 <all>
2718
2719 \mode<beamer|second>
2720
2721 \define@key{beamerframe}{negativefill}[true]{
2722   \gdef\maybeinverse{inverse }%
2723   \usebeamercolor[fg]{\maybeinverse normal text}%
2724   \setbeamertemplate{title page}[negativefill]
2725   \setbeamertemplate{section page}[negative]%
2726   \setbeamertemplate{subsection page}[negative]%
2727   \setbeamertemplate{background canvas}[negativefill]%
2728 }
2729
2730 \define@key{beamerframe}{negative}[true]{
2731   \gdef\maybeinverse{inverse }%
2732   \usebeamercolor[fg]{\maybeinverse normal text}%
2733   \setbeamertemplate{title page}[negative]
2734   \setbeamertemplate{section page}[negative]%
2735   \setbeamertemplate{subsection page}[negative]%
2736   \setbeamertemplate{background canvas}[negative]%
2737 }

```

```

2738
2739 \mode
2740 <all>
2741
2742 \define@key{beamerframe}{graphicfill}[{\includegraphics[scale=0.1,min
2743   width=\paperwidth,min height=\paperheight]{Images/uantwerpen-01.jpg}}]{
2744   \gdef\maybeinverse{inverse }%
2745   \usebeamercolor[fg]{\maybeinverse normal text}%
2746   \setbeamertemplate{background canvas}[graphicfill]{#1}
2747 }
2748
2749 \define@key{beamerframe}{graphic}[{\includegraphics[scale=0.1,min
2750   width=\textwidth,min height=\textheight]{Images/uantwerpen-02.jpg}}]{
2751   \gdef\maybeinverse{inverse }%
2752   \usebeamercolor[fg]{\maybeinverse normal text}%
2753   \setbeamertemplate{background canvas}[graphic]{#1}
2754 }
2755
2756 \define@key{beamerframe}{lhgraphic}
2757   [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2758     height=\textheight]{Images/uantwerpen-03.jpg}}]{
2759   \gdef\maybeinverse{}%
2760   \setbeamertemplate{background canvas}[lhgraphic]{#1}
2761   \@rhtexttrue
2762 }
2763
2764 \define@key{beamerframe}{lqgraphic}
2765   [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2766     height=\textheight]{Images/uantwerpen-04.jpg}}]{
2767   \gdef\maybeinverse{}%
2768   \setbeamertemplate{background canvas}[lqgraphic]{#1}
2769   \@rqttexttrue
2770 }
2771
2772 \define@key{beamerframe}{rhgraphic}
2773   [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2774     height=\textheight]{Images/uantwerpen-05.jpg}}]{
2775   \gdef\maybeinverse{}%
2776   \setbeamertemplate{background canvas}[rhgraphic]{#1}
2777   \@lhtexttrue
2778 }
2779
2780 \define@key{beamerframe}{rqgraphic}
2781   [{\includegraphics[scale=0.5,min width=0.5\paperwidth,min
2782     height=\textheight]{Images/uantwerpen-05.jpg}}]{
2783   \gdef\maybeinverse{}%
2784   \setbeamertemplate{background canvas}[rqgraphic]{#1}
2785   \@lqttexttrue
2786 }
2787
2788 \define@key{beamerframe}{thgraphic}
2789   [{\includegraphics[scale=0.5,min width=\paperwidth,min
2790     height=0.5\textheight]{Images/uantwerpen-06.jpg}}]{
2791   \gdef\maybeinverse{}%

```

```

2792 \setbeamertemplate{background canvas}[thgraphic]{#1}
2793 \@bhtexttrue
2794 }
2795
2796 \define@key{beamerframe}{bhgraphic}
2797 [ {\includegraphics[scale=0.5,min width=\paperwidth,min
2798   height=0.5\textheight]{Images/uantwerpen-07.jpg}} ] {
2799 \gdef\maybeinverse{}%
2800 \setbeamertemplate{background canvas}[bhgraphic]{#1}
2801 }
2802
2803 \BeforeBeginEnvironment{frame}{%
2804 \gdef\maybeinverse{}%
2805 \setbeamertemplate{title page}[main]%
2806 \setbeamertemplate{section page}[main]%
2807 \setbeamertemplate{subsection page}[main]%
2808 \setbeamertemplate{background canvas}[normal]%
2809 \usebeamercolor[fg]{normal text}%
2810 }
2811
2812 % The following does not work as \end{frame} is never executed by
2813 % beamer!
2814 % \AtEndEnvironment{frame}{\gdef\maybeinverse{}}
2815
2816 \NewEnviron{rhframe}[3] [] {%
2817 \begin{frame}[#1]{#2}{#3}
2818 \begin{minipage}[t]{0.525\textwidth}
2819 ~
2820 \end{minipage}
2821 \begin{minipage}[t]{0.465\textwidth}
2822 \BODY
2823 \end{minipage}
2824 \end{frame}
2825 }
2826
2827 \NewEnviron{r3qframe}[3] [] {%
2828 \begin{frame}[#1]{#2}{#3}
2829 \begin{minipage}[t]{0.23\textwidth}
2830 ~
2831 \end{minipage}
2832 \begin{minipage}[t]{0.76\textwidth}
2833 \BODY
2834 \end{minipage}
2835 \end{frame}
2836 }
2837
2838 \NewEnviron{lhframe}[3] [] {%
2839 \begin{frame}[#1]{#2}{#3}
2840 \begin{minipage}[t]{0.465\textwidth}
2841 \BODY
2842 \end{minipage}
2843 \begin{minipage}[t]{0.525\textwidth}
2844 ~
2845 \end{minipage}

```



```

2846 \end{frame}
2847 }
2848
2849 \NewEnviron{l3qframe}[3] []{%
2850 \begin{frame}[#1]{#2}{#3}
2851 \begin{minipage}[t]{0.77\textwidth}
2852 \BODY
2853 \end{minipage}
2854 \begin{minipage}[t]{0.22\textwidth}
2855 ~
2856 \end{minipage}
2857 \end{frame}
2858 }
2859
2860 \NewEnviron{bhframe}[3] []{%
2861 \begin{frame}[#1]{#2}{#3}
2862 \BODY
2863 \end{frame}
2864 }
2865
2866 \NewEnviron{thframe}[3] []{%
2867 \begin{frame}[#1]{#2}{#3}
2868 \BODY
2869 \end{frame}
2870 }
2871
2872 %%%%%%%%%%%
2873 % Order:
2874 % 1. option is executed
2875 % 2. frametitle is typeset
2876 % 3. canvas is typeset
2877 % 4. frame is typeset
2878 %%%%%%%%%%%
2879
2880 \def\ps@uantwerpen@titlepage{%
2881 \setbeamercolor{title in title page}{parent=palette primary}
2882 \setbeamertemplate{footline}[empty]
2883 \@nameuse{ps@uantwerpen}
2884 }
2885
2886 \defbeamertemplate*{background canvas}{negativefill}[1]
2887 {%
2888 \gdef\appropriatelogo{\logomonowhite}%
2889 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2890 \insertframenummer/\inserttotalframenummer}%
2891 \color{maincolor}\vrule width\paperwidth height\paperheight
2892 }
2893
2894 \defbeamertemplate*{background canvas}{negative}[1]
2895 {%
2896 \gdef\appropriatelogo{\logopos}%
2897 \gdef\appropriateslidenumber{}%
2898 \begin{tikzpicture}
2899 \clip (0,0) rectangle (\pw,\ph);

```

```

2900   \uantwerpenleftshape[fill=maincolor]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
2901   \end{tikzpicture}
2902 }
2903
2904 \defbeamertemplate*{background canvas}{graphicfill}[1]
2905 {%
2906   \gdef\appropriatelogo{\logoneg}%
2907   \gdef\appropriateslidenumber{}%
2908   \begin{tikzpicture}
2909     \clip (0,0) rectangle (\pw,\ph);
2910     \node[align=center] at (0.5*\pw,0.5*\ph) {#1};
2911   \end{tikzpicture}%
2912 }
2913
2914 \defbeamertemplate*{background canvas}{graphic}[1]
2915 {%
2916   \gdef\appropriatelogo{\logopos}%
2917   \gdef\appropriateslidenumber{}%
2918   \begin{tikzpicture}
2919     \clip (0,0) rectangle (\pw,\ph);
2920     \begin{scope}
2921       \uantwerpenleftshape[clip]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
2922       \node[align=center] at (0.5*\pw,0.5*\ph) {#1};
2923     \end{scope}
2924   \end{tikzpicture}%
2925 }
2926
2927 \defbeamertemplate*{background canvas}{lhgraphic}[1]
2928 {%
2929   \gdef\maybeinverse{}%
2930   \gdef\appropriatelogo{\logopos}%
2931   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}}%
2932   \insertframenumbers/\inserttotalframenumbers%
2933   \pgfmathsetmacro\dx{0.5*\pw-1.2}%
2934   \pgfmathsetmacro\dy{\ph-1.6}%
2935   \begin{tikzpicture}
2936     \clip (0,0) rectangle (\pw,\ph);
2937     \begin{scope}
2938       \uantwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
2939       \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
2940     \end{scope}
2941   \end{tikzpicture}
2942   \@tempwatrue
2943 }
2944
2945 \defbeamertemplate*{background canvas}{lqgraphic}[1]
2946 {%
2947   \gdef\maybeinverse{}%
2948   \gdef\appropriatelogo{\logopos}%
2949   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}}%
2950   \insertframenumbers/\inserttotalframenumbers%
2951   \pgfmathsetmacro\dx{0.25*\pw-1.2}%
2952   \pgfmathsetmacro\dy{\ph-1.6}%
2953   \begin{tikzpicture}

```

```

2954 \clip (0,0) rectangle (\pw,\ph);
2955 \begin{scope}
2956 \uantwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
2957 \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy)
2958 {#1};
2959 \end{scope}
2960 \end{tikzpicture}
2961 \@tempswatruue
2962 }
2963
2964 \defbeamertemplate*{background canvas}{rhgraphic}[1]
2965 {%
2966 \gdef\maybeinverse{}%
2967 \gdef\appropriatelogo{\logopos}%
2968 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2969 \insertframenumber/\inserttotalframenumber}%
2970 \pgfmathsetmacro\dx{0.5*\pw-1.2}%
2971 \pgfmathsetmacro\dy{\ph-1.6}%
2972 \begin{tikzpicture}
2973 \clip (0,0) rectangle (\pw,\ph);
2974 \begin{scope}[shift={(0.5*\pw,0)}]
2975 \uantwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
2976 \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
2977 \end{scope}
2978 \end{tikzpicture}
2979 \@tempswatruue
2980 }
2981
2982 \defbeamertemplate*{background canvas}{rqgraphic}[1]
2983 {%
2984 \gdef\maybeinverse{}%
2985 \gdef\appropriatelogo{\logopos}%
2986 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2987 \insertframenumber/\inserttotalframenumber}%
2988 \pgfmathsetmacro\dx{0.25*\pw-1.2}%
2989 \pgfmathsetmacro\dy{\ph-1.6}%
2990 \begin{tikzpicture}
2991 \clip (0,0) rectangle (\pw,\ph);
2992 \begin{scope}[shift={(0.75*\pw,0)}]
2993 \uantwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
2994 \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
2995 \end{scope}
2996 \end{tikzpicture}
2997 \@tempswatruue
2998 }
2999
3000 \defbeamertemplate*{background canvas}{thgraphic}[1]
3001 {%
3002 \gdef\maybeinverse{}%
3003 \gdef\appropriatelogo{\logopos}%
3004 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3005 \insertframenumber/\inserttotalframenumber}%
3006 \pgfmathsetmacro\dx{\pw-1.6}%
3007 \pgfmathsetmacro\dy{0.5*\ph-0.8}%

```

```

3008 \begin{tikzpicture}
3009   \clip (0,0) rectangle (\pw,\ph);
3010   \begin{scope}[shift={(0,0.5*\ph)}]
3011     \untwerpenleftshape[clip] {(0.8,0)}{(0.8+\dx,\dy)}
3012     \node[align=center] at (0.8+0.5*\dx,0.5*\dy) {#1};
3013   \end{scope}
3014 \end{tikzpicture}
3015 \@tempwattrue
3016 }
3017
3018 \defbeamertemplate*{background canvas}{bhgraphic}[1]
3019 {%
3020   \gdef\maybeinverse{}%
3021   \gdef\appropriatelogos{\logopos}%
3022   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3023     \insertframenumber/\inserttotalframenumber}%
3024   \pgfmathsetmacro\dx{\pw-1.6}%
3025   \pgfmathsetmacro\dy{0.5*\ph-0.8}%
3026   \begin{tikzpicture}
3027     \clip (0,0) rectangle (\pw,\ph);
3028     \begin{scope}[shift={(0,0.8)}]
3029       \untwerpenleftshape[clip] {(0.8,0)}{(0.8+\dx,\dy)}
3030       \node[align=center] at (0.8+0.5*\dx,0.5*\dy) {#1};
3031     \end{scope}
3032   \end{tikzpicture}
3033   \@tempwattrue
3034 }
3035
3036
3037 \defbeamertemplate*{background canvas}{normal}
3038 {%
3039   \gdef\maybeinverse{}%
3040   \gdef\appropriatelogos{\logopos}%
3041   \gdef\appropriateslidenumber{\usebeamercolor{pageno in
3042     head/foot}\insertframenumber/\inserttotalframenumber}%
3043 }
3044
3045
3046 \defbeamertemplate*{title page}{main}[1] []
3047 {%
3048   \thispagestyle{untwerpen@titlepage}%
3049   \begin{tikzpicture}
3050     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3051     \node[anchor=center] at (0.5*\textwidth,0.75*\ph)
3052     {\includegraphics[height=.9\logounitheight]{\logopos}};
3053     \node[
3054       text width=0.98\textwidth,
3055       text=basecolor,
3056       align=center] at (0.5*\textwidth,0.5*\ph) {
3057       \begin{beamercolorbox}[wd=\textwidth,center]{title in title page}
3058         \LARGE\bfseries\inserttitle\[\1ex]
3059         \usebeamercolor[fg]{subtitle in title page}
3060         \color{fg}\large\bfseries\insertsubtitle
3061       \end{beamercolorbox}

```

```

3062 };
3063 \node[
3064 text width=0.98\textwidth,
3065 color=basecolor,
3066 align=center] at (0.5*\textwidth,0.25*\ph) {
3067   \begin{beamercolorbox}[wd=\textwidth,center]{author in title page}
3068     \large\bfseries\insertauthor
3069   \end{beamercolorbox}
3070 };
3071 \node[
3072 text width=0.98\textwidth,
3073 color=basecolor,
3074 align=center] at (0.5*\textwidth,0.15*\ph) {
3075   \begin{beamercolorbox}[wd=\textwidth,center]{date in title page}
3076     \normalsize\bfseries\insertdate
3077   \end{beamercolorbox}
3078 };
3079 \end{tikzpicture}
3080 }
3081
3082 \defbeamertemplate*{title page}{negative}[1]{}
3083 {
3084   \begin{tikzpicture}
3085     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3086     \node[
3087       text width=0.98\textwidth,
3088       align=center] at (0.5*\textwidth,0.5*\ph) {
3089         \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
3090           \LARGE\bfseries\inserttitle\ [1ex]
3091           \usebeamercolor[fg]{\maybeinverse subtitle in title page}
3092           \color{fg}\large\bfseries\insertsubtitle
3093         \end{beamercolorbox}
3094       };
3095     \node[
3096       text width=0.98\textwidth,
3097       align=center,] at (0.5*\textwidth,0.25*\ph) {
3098       \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
3099         \large\bfseries\insertauthor
3100       \end{beamercolorbox}
3101     };
3102     \node[
3103       text width=0.98\textwidth,
3104       color=basecolor,
3105       align=center] at (0.5*\textwidth,0.15*\ph) {
3106       \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
3107         \normalsize\bfseries\insertdate
3108       \end{beamercolorbox}
3109     };
3110   \end{tikzpicture}
3111 }
3112
3113 \defbeamertemplate*{title page}{negativefill}[1]{}
3114 {
3115   \thispagestyle{uantwerpen@titlepage}

```

```

3116 \begin{tikzpicture}
3117 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3118 \node[anchor=center] at (0.5*\textwidth,0.75*\ph)
3119 {\includegraphics[height=.9\logounitheight]{\logomonowhite}};
3120 \node[
3121 draw,rectangle,
3122 text width=0.98\textwidth,
3123 color=maincolor,
3124 align=center] at (0.5*\textwidth,0.5*\ph) {
3125 \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
3126 \LARGE\bfseries\inserttitle\[[1ex]
3127 \usebeamercolor[fg]{inverse subtitle in title page}
3128 \color{fg}\large\bfseries\insertsubtitle
3129 \end{beamercolorbox}
3130 };
3131 \node[
3132 text width=0.98\textwidth,
3133 color=maincolor,
3134 align=center] at (0.5*\textwidth,0.25*\ph) {
3135 \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
3136 \large\bfseries\insertauthor
3137 \end{beamercolorbox}
3138 };
3139 \node[
3140 text width=0.98\textwidth,
3141 color=basecolor,
3142 align=center] at (0.5*\textwidth,0.15*\ph) {
3143 \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
3144 \normalsize\bfseries\insertdate
3145 \end{beamercolorbox}
3146 };
3147 \end{tikzpicture}
3148 }
3149
3150 \defbeamertemplate*{section page}{main}[1] []
3151 {%
3152 \begin{tikzpicture}
3153 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3154 \node[
3155 text width=0.98\textwidth,
3156 text=basecolor,
3157 align=center] at (0.5*\textwidth,0.55*\ph) {
3158 \begin{beamercolorbox}[wd=\textwidth,center]{section title}
3159 \Large\bfseries\insertsectionnumber.\~\insertsection
3160 \end{beamercolorbox}
3161 };
3162 \end{tikzpicture}
3163 }
3164
3165 \defbeamertemplate*{subsection page}{main}[1] []
3166 {%
3167 \begin{tikzpicture}
3168 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3169 \node[

```

```

3170 text width=0.98\textwidth,
3171 text=basecolor,
3172 align=center] at (0.5*\textwidth,0.55*\ph) {
3173   \begin{beamercolorbox}[wd=\textwidth,center]{section title}
3174   \Large\bfseries\insertsectionnumber.\~\insertsection
3175   \end{beamercolorbox}
3176 };
3177 \node[
3178 text width=0.98\textwidth,
3179 text=basecolor,
3180 align=center] at (0.5*\textwidth,0.45*\ph) {
3181   \begin{beamercolorbox}[wd=\textwidth,center]{subsection title}
3182   \large\bfseries\insertsubsection
3183   \end{beamercolorbox}
3184 };
3185 \end{tikzpicture}
3186 }
3187
3188 \defbeamertemplate*{section page}{negative}[1] []
3189 {
3190   \begin{tikzpicture}
3191     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3192     \node[
3193 text width=0.98\textwidth,
3194 text=basecolor,
3195 align=center] at (0.5*\textwidth,0.55*\ph) {
3196   \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
3197   \Large\bfseries\insertsectionnumber.\~\insertsection
3198   \end{beamercolorbox}
3199 };
3200 \end{tikzpicture}
3201 }
3202
3203 \defbeamertemplate*{subsection page}{negative}[1] []
3204 {
3205   \begin{tikzpicture}
3206     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3207     \node[
3208 text width=0.98\textwidth,
3209 text=basecolor,
3210 align=center] at (0.5*\textwidth,0.55*\ph) {
3211   \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
3212   \Large\bfseries\insertsectionnumber.\~\insertsection
3213   \end{beamercolorbox}
3214 };
3215   \node[
3216 text width=0.98\textwidth,
3217 text=basecolor,
3218 align=center] at (0.5*\textwidth,0.45*\ph) {
3219   \begin{beamercolorbox}[wd=\textwidth,center]{inverse subsection title}
3220   \large\bfseries\insertsubsection
3221   \end{beamercolorbox}
3222 };
3223 \end{tikzpicture}

```

```

3224 }
3225
3226 \defbeamertemplate*{footline}{empty}
3227 {
3228 }
3229
3230 \defbeamertemplate*{footline}{normal}
3231 {%
3232   \leavevmode%
3233   \hbox{\begin{beamercolorbox}
3234     [wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,left,leftskip=.8cm
3235     plus1fill]{author in head/foot}%
3236     \includegraphics[height=0.35\logounitheight]{\appropriatologo}
3237     \hskip0pt plus 1filll ~
3238   \end{beamercolorbox}}%
3239   \begin{beamercolorbox}[wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,
3240     right,rightskip=.8cm plus1fill]{\maybeinverse pageno in head/foot}%
3241     \usebeamerfont{pageno in head/foot}~\hskip0pt plus 1filll
3242     \appropriateslidenumber
3243   \end{beamercolorbox}}%
3244   \vskip0pt%
3245 }
3246
3247 \defbeamertemplate*{frametitle}{empty}
3248 {
3249 }
3250
3251 \defbeamertemplate*{frametitle}{normal}
3252 {%
3253   \vskip0.75cm%
3254   \if@rhtext%
3255     \@tempdima=0.5\textwidth%
3256     \@tempdimb=0.5\textwidth%
3257     \advance\@tempdima by0.5\beamer@leftmargin%
3258     \advance\@tempdimb by-0.5\beamer@leftmargin%
3259     \else%
3260     \if@rqttext%
3261       \@tempdima=0.23\textwidth%
3262       \@tempdimb=0.77\textwidth%
3263     \else%
3264     \if@lhtext%
3265       \@tempdima=0em%
3266       \@tempdimb=0.5\textwidth%
3267       \advance\@tempdimb by-0.5\beamer@leftmargin%
3268     \else%
3269     \if@lqttext%
3270       \@tempdima=0em%
3271       \@tempdimb=0.77\textwidth%
3272     \else%
3273     \if@bhtext%
3274       \@tempdima=0em%
3275       \@tempdimb=\textwidth%
3276     \vskip0.5\textheight%
3277     \else%

```



```

3278 \@tempdima=0em%
3279 \@tempdimb=\textwidth%
3280 \fi%
3281 \fi%
3282 \fi%
3283 \fi%
3284 \fi%
3285 \hskip\@tempdima%
3286 \begin{beamercolorbox}[wd=\@tempdimb]{\maybeinverse frametitle}%
3287 \usebeamerfont{frametitle}\insertframetitle\[\[0.5ex]%
3288 \ifx\insertframesubtitle\@empty%
3289 {\usebeamerfont{framesubtitle}%
3290 \usebeamercolor[fg]{\maybeinverse framesubtitle}~\strut\par}%
3291 \vskip-1ex%
3292 \else%
3293 {\usebeamerfont{framesubtitle}%
3294 \usebeamercolor[fg]{\maybeinverse framesubtitle}%
3295 \insertframesubtitle\strut\par}%
3296 \fi%
3297 \if@tempswa\else\vskip-.3cm\fi set inside beamercolorbox... evil here...
3298 \end{beamercolorbox}%
3299 }
3300
3301 \newdimen\xlopleft
3302 \newdimen\ylopleft
3303 \newdimen\xupright
3304 \newdimen\yupright
3305 \newdimen\xcurrent
3306 \newdimen\ycurrent
3307 \newcommand*\extractlopleft[1]{\path (#1);\pgfgetlastxy{\xlopleft}{\ylopleft};}
3308 \newcommand*\extractupright[1]{\path (#1);\pgfgetlastxy{\xupright}{\yupright};}
3309 \newcommand*\extractcurrent[1]{\path (#1);\pgfgetlastxy{\xcurrent}{\ycurrent};}
3310
3311 \DeclareRobustCommand\place{\@ifnextchar[{\@place}{\@place[align=left] }}
3312 \def\@place[#1] at (#2,#3)#4{
3313 \begin{tikzpicture}[overlay,remember picture]
3314 \extractlopleft{$(current page.south west)$}
3315 \extractupright{$(current page.north east)$}
3316 \node[#1] at
3317 ({\xlopleft*(1-#2)+\xupright*#2},{\ylopleft*(1-#3)+\yupright*#3}) {#4};
3318 \end{tikzpicture}
3319 }
3320
3321 \mode
3322 <all>
3323 </bmrrouter>

```

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	38	Added diploma code documentation	11
	Added option titlepagenoartwork	38	v1.7	
	Added option titlepagetableonly	38	<code>\maketitle</code> : Embedded babel translations of keywords into title page	68, 72
v1.1	<code>\diploma</code> : Fixed typo on programme's name (e-umlaut)	56	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	44
	Added option user documentation	8	v1.8	
	Made raggedright conditional on option 'filled', because it can't be undone	66	<code>\makefinalpage</code> : Inserted blank one but last page	71
v1.2	General: Added lmodern package and increased headheight to 13.7pt to please Fancyhdr	1	<code>\maketitle</code> : Allowed for empty senderrole	79
	Added lmodern package to please MikTeX	40	<code>\signature</code> : Added signature	61
	Increased headheight to please Fancyhdr	66	General: Corrected minor typographic mistakes, added signature and solved problems with shell escape	1
v1.3	<code>\makefinalpage</code> : Changed eso-pic for tikz	71, 73	Added missing packages ifmtarg and shellesc	40
	<code>\maketitle</code> : Changed eso-pic for tikz	72	Allowed for empty senderrole	80
	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	40	General: Bugfixes for release v1.8 . . .	1
	Added inclusion of background package	41	Apparently shellesc is still missing from quite a number of installations, therefore, conditional loading	40
v1.4	General: Implemented uantwerpenletter class	1	v1.9	
	Implemented letter class	38	General: Integrated uantwerpenexam class into package	1
v1.5	<code>\maketitle</code> : Implemented new footer	79	Added etoolbox for convenience reasons	40
	General: Replaced bottom arcs in footer of letter by official PDF versions	1	Implemented uantwerpenexam class	38
v1.6	<code>\diploma</code> : Added diploma codes	56	v2.0	
			<code>\makefinalpage</code> : Implemented final page	76, 79
			<code>\maketitle</code> : Implemented title page	74
			General: Implemented uantwerpenphdthesis class into package	1
			Implemented uantwerpenphdthesis class	38

Removed package ifmtarg because unreliable	40	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	57
v2.1 <code>\engdut</code> : Increased intercolumn spacing for engdut	84	<code>\insertsolutionspagepartial</code> : Corrected for 'one page too early' in solutionspagepartial	85
<code>\extrainfo</code> : Changed default to empty	63	<code>\maketitle</code> : Corrected formatting in case of absent ISBN or depot number	74
<code>\maketitle</code> : Corrected information page (p4) jury spacing	74	<code>\programme</code> : Shortened 'voorbereidingsprogramma' and 'schakelprogramma' tags	55
<code>\subtitle</code> : Added subtitle to phd text	49	<code>\publisher</code> : changed publisher to universitas in default	50
Ensured that subtitle is really optional by adding default space value	49	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)	49
Added appropriate <code>\appendix</code> command	67	General: Adapted to the new house style of UAntwerpen and added a beamer template	1
Allow for setting the multiple choice mark symbol	84	Added iftex	40
Corrected erroneous line breaking	85	v3.1 General: Renamed generic images to be unique for TexLive distribution	1
Corrected spacing in title + exampart	81	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	56
Added white chapter number outline	67	<code>\facultyacronym</code> : This function is now obsolete	49
Corrected spacing	67	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	56	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'	63	Removed option qr again	38
General: Reworked masterthesis to bamathesis and minor bug fixes	1		
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v2.4 <code>\diploma</code> : Added code for Master EM without specialization	56		

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