LaTeX-Titlepages for Assignments and Theses at the University of Dortmund

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Contents

Abstract

This package introduces a titlepage layout to be used at the University of Dortmund (UDO). The implementation involves a usual LaTeX-document in addition to the general setup of the package. Please note that this is the first version of the UDO title, thus errors unknown to the developer may occur. Therefore the use of this package is at your own risk. The author rejects any responsibility for loss of code, data, or unexpected results.

1 Introduction

The intention of the presented package *UDOTitle* is to provide users with a ready-to-use titlepage featuring the corporate layout of the University of Dortmund. To do so, the *titlepage*-package has been modified to suit the predefined format. Applied extensions to the *titlepage*-package are

- An additional field denoting the type of scientific report (such as thesis, assignment, homework, ect.)
- An additional field for the supervisors of the work.
- An additional field for the immatriculation number (student ID).
- An additional field for the institutes involved along with a corresponding logo.
- The corporate design of UDO, featuring two additional logos.

Some of these definitions were based on the LaTeX-sourcecode of Renner's thesis [1] at the Department of Computer Science at UDO. Figure 1 gives an example for a titlepage generated by applying *UDOTitle* . The basic layout consists of a centered logo surrounded by type and title of the work above and names along with the author's data below. The UDO-bar in the upper right corner is basically intended to fit in the edge of the sheet. This will work properly with any digital papers (e.g. PDF), but may cause errors in a hardcopy as not every printer may access the whole A4 paper. To overcome this problem, you should generate a PDF first and print the titlepage with the option *fit to paper*. Thus the page is slightly smaller but still contains all information.

Currently only the English version of the titlepage is supported. Support for the *german*-package is planned, but may still take some time. Thus, a complete explanation of the package is given in chapter 4, TeXnical details.

This how2 consists of five major sections. While you are almost finished with the first, the second provides all one must know about the usage of this package. The third chapter gives a brief overview on the currently provided logos. Of course you are encouraged to add further logos or create some on your own. Chapter four explains the sourcecode in detail. Since only a few problems may be covered in the FaQ, I intend to explain what I did in order to provide you with the possibility to help yourself and even make the whole code better. Finally, some of the most common errors will be discussed in the FaQ.

I won't be able to answer all of your questions. Thus, instead of providing an e-mail, I invite you to contribute your comments, suggestions, and improvements to the forum of electrical engineering at `www.forum.fset.de`.

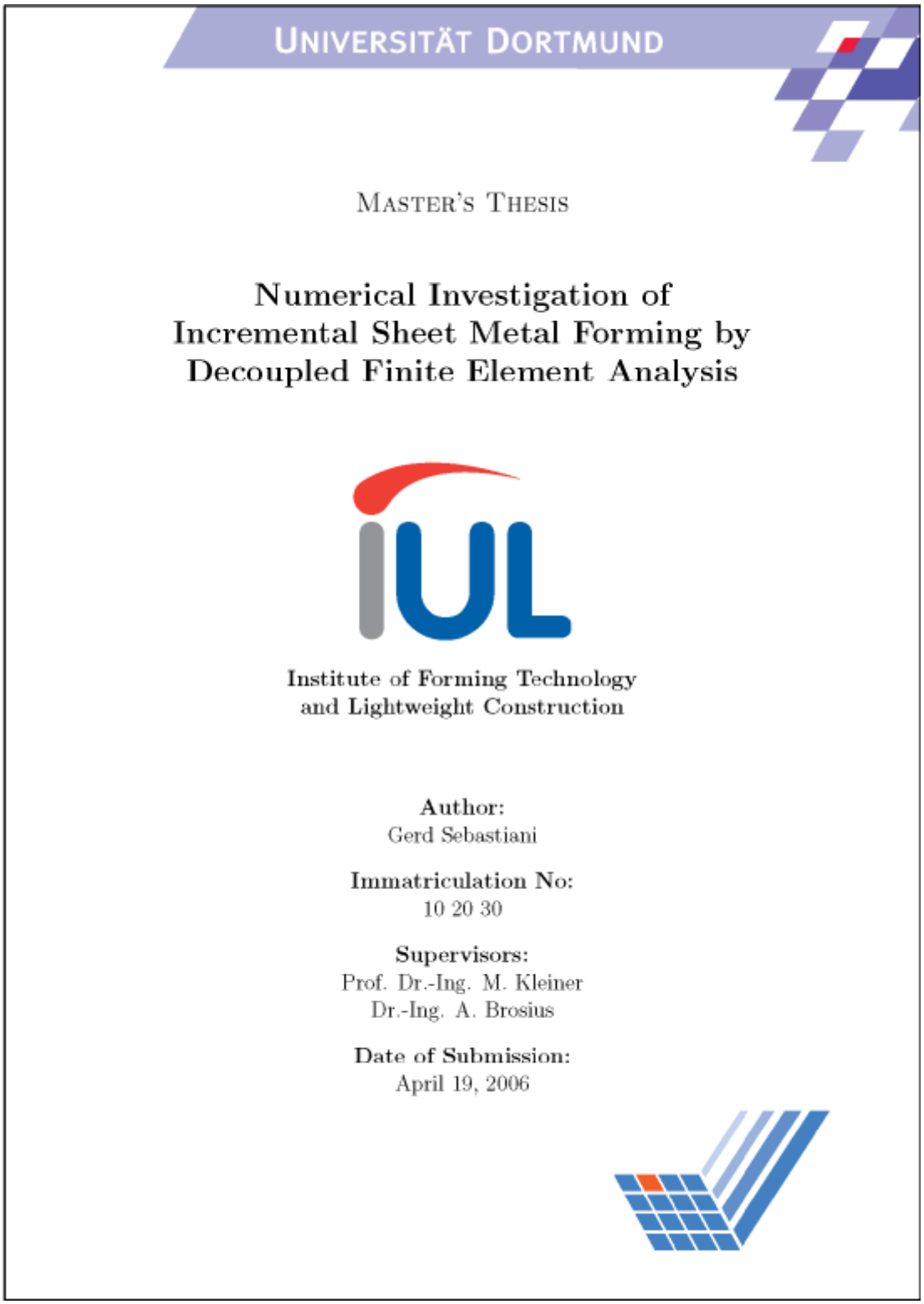

Figure 1: Example of a UDO-Titlepage

2 Implementation

Implementation of the *UDOTitle* is quite simple:

1. Copy the package *UDOTitle* to your working directory, where your LaTeXmain document is located.
2. Create a folder *./options* in your working directory and place the used graphics, namely *udobalken.eps* and *udohaken.eps*.
3. Select your desired title logo, rename it to *institute.X* where *.X* denotes the already existing suffix, and copy it to the folder *./options* as well. A selection of predefined logos is given below in chapter 3.
4. Add the required packages to your preamble. Simply stating `\usepackage{udotitle}` should do the job.
5. Define the page content
   - `\thesistype{yourtype}`
     The variable *yourtype* should denote the type of the paper, such as homework, assignment (No.), thesis, lab report.
   - `\title{yourtitle}`
     Replace *yourtitle* with the major topic or title. The latter is often already given in case of assignments.
   - `\institute{text}`
     This *text* will be displayed directly below the logo, thus stating the name of the corresponding institute. Adjust it to fit the logo used.
   - `\author{yourname}`
     Well, I suppose you imagine what to put in case of *yourname*? I have not explicitly tested the `\thanks{}` function, so I recommend not to use it here.
   - `\matno{yourno}`
     State your student ID (Immatriculation Number) here.
   - `\date{\today}`
     Either put the submission deadline, the current date via `\today` or any other date here.
   - `\tutor{1st Supervisor}{2nd Supervisor}` I assumed two supervisors here since any assignments or theses have to be corrected by at least two persons to ensure neutrality. As a general rule, put the corresponding professor as 1st supervisor and his assistant (mostly the fellow giving the classes) as second.

3 Supported Logos

3.1 General Issues

You may find the logos presented rather focus on mechanical and electrical engineering. They indeed are, but you can simply create your own logo or simply ask the corresponding institute. Furthermore, you may also use a graphic directly related to the corresponding topic. Just make sure that the size still fits. Feel free to contribute your own collection of relevant logos from your department. Keep in mind that you have to rename the desired logofile to *institute.png* and copy it to the folder *./options*.

3.2 Mastercourse in Automation and Robotics

This is the general logo of the Student Association of Automation and Robotics. Simply use it if you are a member of the A&R Body of students and have no other suiting logo.

Figure 2: Logo of the Mastercourse Automation and Robotics

Filename: anr.png

url: `www.forum.fset.de`

3.3 Student Association of Electrical and Computer Engineering

The same applies to the students of electrical engineering.

Figure 3: Logo of the Student Association of Electrical and Computer Engineering

Filename: fset.png

url: `www.forum.fset.de`

3.4 Graduate School of Production Engineering

Graduate Students might find this logo more interesting.

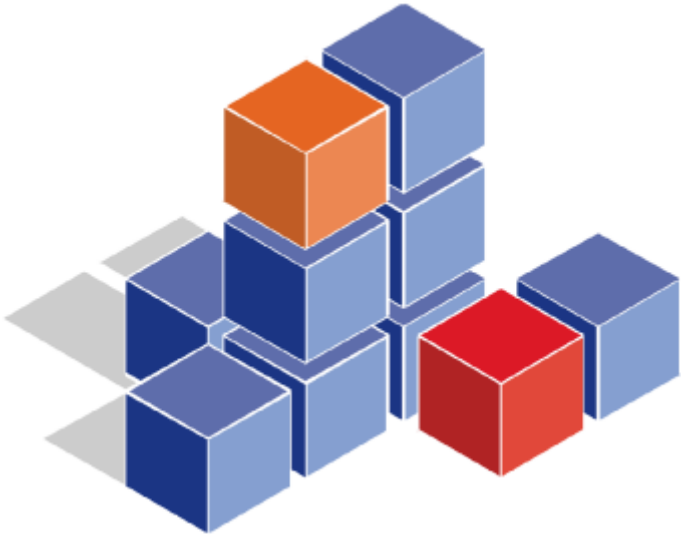

Figure 4: Logo of the Graduate School of Production Engineering and Logistics

Filename: gs.png

url: `www.mb.uni-dortmund.de`

3.5 Institute of Robotics

The IRF may be useful for assignments in the mandatory classes in *Fundamentals of Robotics* or the *Robotics Lab*. Please note that the IRF is also in charge of the course *Computer Systems*, thus the use is suggested here as well.

Figure 5: Logo of the Institute of Robotics

Filename: irf.png

url: `www.irf.uni-dortmund.de`

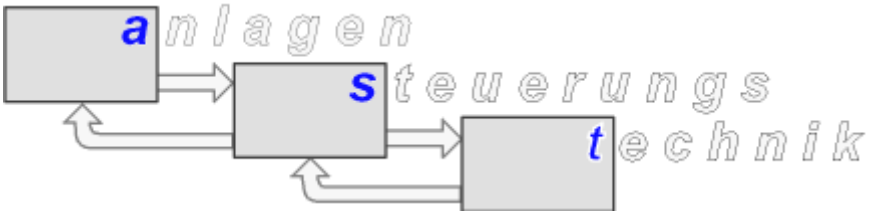

Figure 6: Logo of the Chair of Anlagen-Steuerungs-Technik (AST)

3.6 Process Control Laboratory

Many A&R Courses are given by the Chair AST, also demanding assignments presented in LaTeX. Therefore this Logo might be useful for mandatory assignments in *Control Theory*.

Filename: ast.png

url: `www.bci.uni-dortmund.de/ast`

3.7 Numerics Lab / Featflow

Well, I applied this logo for my lab report in the numerics lab. As the FE-Code *Featflow* was used throughout the class, I suggest to use it for your report as well. However, for other courses by Professor Turek I suggest to use either the logo of the chair or the general A&R style.

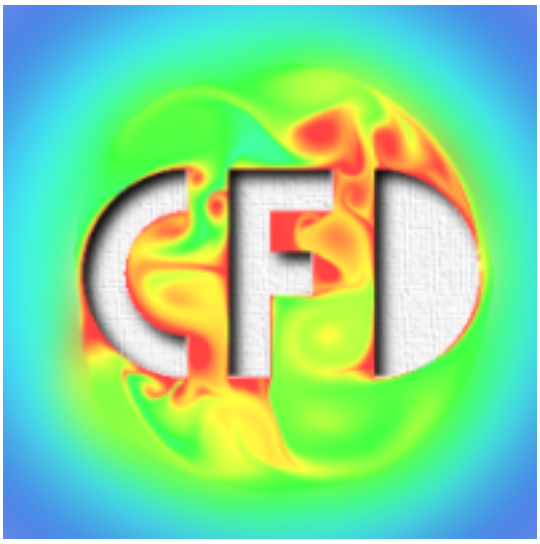

Figure 7: Logo of the Featflow-Project

Filename: ff.png

url: `www.featflow.de`

3.8 Institute of Forming Technology and Lightweight Construction

This might be useful for the Mechanical Engineers who have to hand in a report in one of the various production labs at IUL.

Figure 8: Logo of the Institute of Forming Technology and Lightweight Construction

Filename: iul.png

url: `www.iul.uni-dortmund.de`

3.9 Chair of Mechanics

Homeworks especially in higher level courses are, due to the huge amount of formulas, ideally suited for LaTeXing.

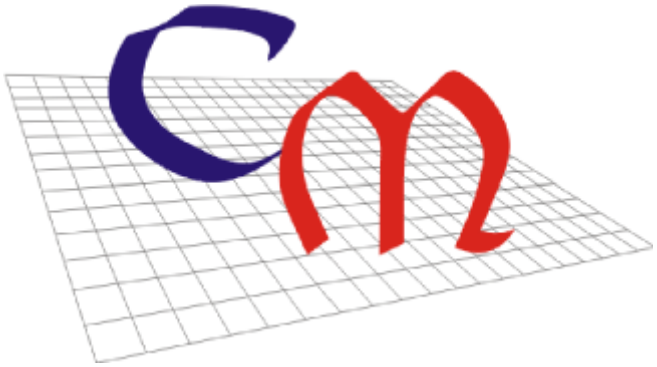

Figure 9: Logo of the Chair of Mechanics

Filename: cm.png

url: `www.mech.mb.uni-dortmund.de`

4 TEXnical Details

To enable you to adjust this package to your own needs, I'd like to briefly explain the code. While seasoned LATEX-programmers may find this section trivial, any newcomers are encouraged to adjust this code to make it work according to your own specifications. The previously mentioned seasoned programmers are, however, encouraged to contribute any suggestions and corrections to this code as well.

```
% UDO Title Package
% Author: Gerd Sebastiani
% Homepage: www.forum.fset.de
%
% Usage: \usepackage{udotitle}
% Modifies titlepage to imitate UDO-Cover with IUL-Logo.
% Load in addition to titlepage.
% Required Input:
%  Type of your thesis (Assigment, Master's, Ph.D. ... ) by \thesistype{yourtype}
%  Title of your thesis by \title{yourtitle}
%   CAUTION: Very long titles (4 lines) may result in a pagebreak.
%    Either use a shorter title or decrease the fontsize
%  Author of the thesis by \author{yourname}
%  Immatriculation number by \matno{yourno}
%  Date of submission by \date{\today}
%  Names of Supervisors by \tutor{1st Supervisor}{2nd Supervisor}
%
%  See comments in the stylesheet to adjust the template to your needs
```

This is only the header, giving a brief how2 as well.

```
\usepackage{graphicx}
```

Load the *graphicx* package for the used graphics in the titlepage. I usually apply *graphicx* along with the *pdftex*-driver. Feel free to try other drivers if the page doesn't work out with your graphics.

```
\usepackage{fancyhdr}
```

I used *fancyhdr* to make the UDO sign fit in the downright corner. Make sure you have the *fancyhdr*-package ready in your setup. Suggestions for a better solution are warmly welcome.

```
\newcommand{\thesistype}[1]{
\def\@thesistype{#1}
}
\def\@thesistype{
\@latex@warning@no@line{Package 'udotitle': No \noexpand\thesistype given}}

\newcommand{\institute}[1]{
\def\@institute{#1}
}
\def\@institute{
\@latex@warning@no@line{Package 'udotitle': No \noexpand\institute given}}

\newcommand{\tutor}[2]{
  \def\@tutorfirst{#1}
  \def\@tutorsecond{#2}
  }
```

```
\def\@tutorfirst{
  \@latex@warning@no@line{Package ‘udotitle’: No \noexpand\tutor given}}

\newcommand{\matno}[1]{
\def\@matno{#1}
}
\def\@matno{
\@latex@warning@no@line{Package ‘udotitle’: No \noexpand\matno given}}
```

Here, the user-input-variables for the title page are defined. Furthermore a warning is issued once a variable is not set in the preamble.

```
\renewcommand{\maketitle}{
\begin{titlepage}
\thispagestyle{fancy}
\renewcommand{\headrulewidth}{0.0pt}
```

Now the page layout begins. Since *fancyhdr* uses a default rule in the header the corresponding thickness has been set to zero.

```
\begin{flushright}
\vspace*{-5.5cm}{
\includegraphics{./options/udobalken.pdf}}
  \end{flushright}
```

Load the UDO header given by a graphic and manually position it in the upper right corner of the page. In this way it will be visible on the monitor only (e.g. PDF) but only printed partially on any hardcopy. To avoid this problem, the option *fit to page* on your local printer is suggested.

```
  \begin{center}
    {\sc
    % Change this for different kinds of reports (assignments ect.)
{\Large \bf \sc \@thesistype \\}
\vspace{36pt}

{\LARGE \bf  \@title \\}     %%% title
\vspace{48pt}
}
```

Print the content of the variables `\thesistype{yourtype}` and `\title{yourtitle}`. Please note that the title may cause a page break if it contains more than three lines of text. Feel free to adjust the vertical space in this case. A `\vfill` was unfortunately not applicable since the center logo should remain vertically fixed at the center of the page. Please let me know in case you come up with a better solution for this problem.

```
% Change this to use other institute
\includegraphics{./options/institute.pdf}\\
    \vspace{12pt}
    {\large \textbf{\@institute} \\}
    \vspace{48pt}
```

Here the logo and the name of the corresponding institute are placed. This part should be located in the vertical center of the page.

```
    {\large
    \textbf{Author:}\\
\@author  \\           %%% author
    \vspace{12pt}

    \textbf{Immatriculation No:}\\
\@matno \\            %%% Matriculation No.
\vspace{12pt}
```

Print the name of the author and the immatriculation number. Adjust this section if you either don't need to state your number or several authors are present. In the latter case you have to adjust the corresponding variables as well. Please note that massive changes will lead to an undesired page break.

```
\textbf{Supervisors:}\\
    \@tutorfirst \\             %%% first tutor
    \@tutorsecond \\               %%% second tutor
    \vspace{12pt}
```

Print the tutors. Simply change the text and comment the variable `\@tutorsecond` if only one supervisor is available.

```
    \textbf{Date of Submission:}\\
\@date  \\  %%% Submission
}
  \end{center}
```

Print the denoted submission deadline and finish the centering.

```
  % Add UDO-Logo in footer (rather cumbersome to achieve...)
  \cfoot{}
  \addtolength{\headwidth}{\marginparsep}
\addtolength{\headwidth}{\marginparwidth}
  \rfoot{\includegraphics{./options/udohaken.pdf}}
\end{titlepage}
\addtolength{\headwidth}{-\marginparsep}
\addtolength{\headwidth}{-\marginparwidth}
}
```

To position the small UDO logo fit into the downright corner, the *fancyhdr*-package was applied. First, any right margins were disabled. Then the graphic *udohaken* is placed in the right footer and the title page is closed. Finally, the margins are set to normal.

This way of positioning the lower logo is rather a workaround than a well programmed solution. Thus I hope the package will benefit from the knowledge of the LaTeX-community.

```
% Use this for an additional blank page
%\newpage
%\thispagestyle{empty}
%\newpage
```

Uncomment this, once a extra blank page is needed in your document.

5 FaQ and known Errors

5.1 Page Break Distorts Title Page

If the content of your page is too large for one page, LaTeXforces a page break, also introducing a strange page numbering on the given pages. This problem can currently only be fixed manually. I suggest to try the following possibilities:

1. **Shorten the title.** If your title contains more than 3 lines a page break is very likely.
2. **Shorten the *institute* reference.** This may help if you used many line breaks such as `//` to get a preferable name.
3. **Change the size of the graphic.** Either use your favorite graphics suite or try resizing the graphic in the stylesheet.

5.2 No Effect of the *German*-Package on the Title

Special language support will be added in the next version. To overcome this flaw in the current version, simply search and replace the following expressions in the stylesheet:

- Replace `Author:` by `Autor:`.
- Replace `Supervisors` by `Betreuer`.
- Replace `Immatriculation No` by `Matrikelnummer`.

Make sure you use the exact keywords in order not to change any variable names.

5.3 The graphics are not visible

Make sure, you use the same graphic driver throughout the whole document. I personally use *pdftex* to make full use of all *hyperref*-features and convert all graphics from *EPS* to *PDF*. There might be better solutions, but here I have to refer to the LaTeX-User-Groups.

6 Acknowledgments

The author would like to thank the LaTeX-Tutors at the *Center for Communication and Informationprocessing* at the University of Dortmund, Ms. Schlager and Dr. Thibud [2] for introducing me into the basic concepts of LaTeX.

Furthermore, I'd like to thank Ingo Renner who provided the foundations for this page in the sourcecode of his thesis [1].

References

[1] **Renner, I.:** *Design und Beispielimplementierung einer bidirektionalen Kopplung zwischen einem ereignisorientierten Simulator und einem Virtual Reality System*, Diploma Thesis at the Department of Computer Science, University of Dortmund.

[2] **Schlager, P.; Thibud, M.:** *Wissenschaftlich mit LaTeXarbeiten*, Pearson Publishing, ISBN: 3-8273-7078-7