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*Abstract

This is an abstract.

Preface

According to WIKIPEDIA, a preface (pronounced “*preffus*”) is an introduction to a book written by the author of the book. In this preface I can discuss the interesting story of how this thesis came into being.

This document is a part of my Master of Science graduation thesis. The idea of doing my thesis on this subject came after a discussion with my good friends Tweedledum and Tweedledee. . .

Acknowledgements

I would like to thank my supervisor for his assistance during the writing of this thesis. . .

By the way, it might make sense to combine the Preface and the Acknowledgements. This is just a matter of taste, of course.

Delft, University of Technology

"In the future, airplanes will be flown by a dog and a pilot. And the dog's job will be to make sure that if the pilot tries to touch any of the buttons, the dog bites him."

— Scott Adams

Introduction

This is a \LaTeX thesis and this is Chapter 1.

\LaTeX is a document preparation system for the \TeX typesetting program. It offers programmable desktop publishing features and extensive facilities for automating most aspects of typesetting and desktop publishing, including numbering and cross-referencing, tables and figures, page layout, bibliographies, and much more.

\LaTeX was originally written in 1984 by Leslie Lamport and has become the dominant method for using \TeX ; few people write in plain \TeX anymore. The current version is $\text{\LaTeX} 2_{\epsilon}$.

If you want to know more about \LaTeX you better read [?].

This section contains an acronym of the DCSC. The DCSC is our department within the faculty of 3mE at TU.

Acronyms are automatically listed in the Glossary in the back of this thesis. You have to define acronyms in `glossary.tex` using `\acro{ACRONYM}{Full text}`. You print an acronym by using the command `\ac{...}`. You can always force a full, long or short printout by using `\acf{...}`, `\acl{...}` or `\acs{...}` respectively.

- ▶ `\acf{DCSC}`: DCSC;
- ▶ `\acl{DCSC}`: DCSC;
- ▶ `\acs{DCSC}`: DCSC.

When you use symbols in your thesis – as you probably will – you can put them into the nomenclature listing (List of Symbols) at the back of your thesis. `tab:nomencl` shows the \LaTeX commands you need.

Table: Nomenclature codes

Code	Usage	Example	
<code>\gsymb{}</code>	Greek symbols	γ Path Angle	
<code>\lsymb{}</code>	Letter symbols	$H(s)$ Transfer function	
<code>\supers{}</code>	Superscript symbols	maxMaximum	<i>only pr</i>
<code>\subs{}</code>	Subscript symbols	minMinimum	<i>only pr</i>
<code>\others{}</code>	Other symbols	[kts]Knots $^{\circ}$, [deg]Degrees	<i>only pr</i>

First Real Chapter

This is real chapter for DCSC, ok? We will use it as a demo for the different headings you can use to structure your text.

This is the section. Referring to equations, figures and tables can easily be done by the commands `\eqnref{}`, `\figref{}` and `\tabref{}`.

$$H(s) = \frac{1}{s + 2} \quad (1)$$

You see? Refer to equations like this `eq:First`.

Subsections are the last type of sectioning that is numbered.

Quick! Check the Table of Contents! Nice, ain't it?

A paragraph title

Subdividing your text in sections and paragraphs automatically makes it nice and structured.

Some Basics

This chapter will cover figures and math.

Figures are constructed using the `figure` environment:

```
\begin{figure}  
\centering  
\includegraphics[options]{imagefile_location}  
\caption{Captions}  
\label{fig:dummy}  
\end{figure}
```

\LaTeX automatically decides the best placement of the Figure in your document. This will usually be at the top or bottom of the current page, or at the top of the next page. This system gives good results most of the time, but it can get confused when you have a large number of figures. The command `\clearpage` creates an empty page where any ‘lost’ figures will be printed. You can refer to a Figure by its label: `\figref{label}`. See for instance `fig:dummy`.



Figure: The DCSC logo. Pretty nice, eh?

I put some fancy math in the section title. Usually this generates complaints from the `hyperref` package, because the bookmarks you see on the left can only handle ‘regular text’. Fortunately, this problem can be solved by using a special command that inserts ‘regular text’ whenever this is necessary during compilation of your thesis: `\texorpdfstring{math}{text}`.

For further information about math in \LaTeX , I recommend looking at the Short Math Guide found at the website of the AMS.

$$1 = 2 \tag{2}$$

$$x = 5 \tag{3}$$

$$y = \theta \tag{4}$$

After the start of a new chapter all acronyms are reset and are `\setacronyms` and `\setacronyms`.

printed as a full acronym the first time it is used again, e.g. DCSC.
After the first use, only the short acronym is printed again: DCSC.
This is a test for nomenclature $A(s)$ Answer function

The Back of the Thesis

Appendices are found in the back.

language=C++ test.c

language=matlab test.m

Yet Another Appendix

Ok, all is well.

Glossary [] 3mE[3mE]Mechanical, Maritime and
Materials EngineeringAMSAmerican Mathematical
SocietyDCSCDelft Center for Systems and ControlTU[TU
Delft]Delft University of Technology