Contents

Chapter 1

Sample Chapter

1.1 Introduction

Simple glossary, nomenclature, list of notations or symbols can be produced with the help of `tabular` environment, *e.g.,*

```
\chapter*{List of Symbols}

\begin{tabular}{ll}

$a$ & The number of angels per unit area\\

$N$ & The number of angels per needle point\\

$A$ & The area of the needle point\\

\end{tabular}
```

To add additional features to this list, `glossaries` package can be used. The `glossaries` package is very flexible, has a lot of options and its user manual is quite well documented. For more details, see `https://www.ctan.org/pkg/glossaries`.

1.2 Glossary

LaTeX is a high-quality typesetting system; it includes features designed for the production of technical and scientific documents.

$$\lambda = \frac{c}{f} \tag{1.1}$$

Definition

```
\newglossaryentry{doc}
{
name=document,
description={Scientific documents}
}
```

Usage

`\gls{ }`	To print the glossary term, lowercase. `\gls{doc}` prints `document`.
`\Gls{ }`	The same as `\gls` but the first letter in uppercase. `\Gls{doc}` prints `Document`
`\glspl{ }`	The same as `\gls` but in its plural form. `\glspl{doc}` prints `documents`.
`\Glspl{ }`	The same as `\Gls` but in its plural form. `\Glspl{doc}` prints `Documents`.

Finally, to print the glossary use the command `\printglossary`.

1.3 Acronym

Given a set of numbers, there are elementary methods to compute its Greatest Common Divisor, which is abbreviated GCD. This process is similar to that used for the Least Common Multiple (LCM).

Definition

```
\newacronym{gcd}{GCD}{Greatest Common Divisor}
```

Usage

`\acrlong{ }`	Prints the phrase which the abbreviation stands for. `\acrlong{gcd}` prints `Greatest Common Divisor`.
`\acrshort{ }`	Prints the abbreviation. `\acrshort{gcd}` prints `GCD`.
`\acrfull{ }`	Prints both, the abbreviation and its definition. `\acrfull{lcm}` prints `Least Common Multiple (LCM)`.

Finally, to print the acronyms `\printglossary[type=\acronymtype]` is used.

1.4 Compilation

(1) LaTeX or PDFLaTeX your document. Then a file with .glo, .acn extensions will be created. In this case `glossary.glo` for glossaries list and `glossary.acn` for acronym list will be generated.
(2) Then run `makeglossaries` or `makeindex <FileName>` in your command prompt, *e.g.*, `makeglossaries glossary` or
`makeindex -s glossary.ist -o glossary.gls glossary.glo`
`makeindex -s glossary.ist -o glossary.acr glossary.acn`
(3) LaTeX or PDFLaTeX your document again. You can see that the glossary list is printed at the place where you have given the `\printglossary` command.

To generate glossaries for this file `glossary.tex`, the following commands are issued:

(1) latex glossary.tex
(2) latex glossary.tex
(3) makeindex -s glossary.ist -o glossary.gls glossary.glo
(4) makeindex -s glossary.ist -o glossary.acr glossary.acn
(5) latex glossary.tex
(6) latex glossary.tex

Windows users can simply type `makeglossaries glossary`, which is equivalent to steps 3) and 4).

Acronyms

GCD Greatest Common Divisor. 2

LCM Least Common Multiple. 2

Glossary

λ Wavelength. 1

document Scientific documents. 1

LaTeX LaTeX, a shortening of Lamport TeX. 1