Dedman/Lyle LaTeX Dissertation Template, v2016 Package

Ted C. Munger*

March 25, 2016

Abstract

This short article describes the files required for the Dedman/Lyle LaTeX Dissertation Template, v.2016 and lists helpful tips in getting started with your first LaTeX project.

1 Introduction

This package was created to help Dedman and Lyle Engineering students get started with their thesis, dissertation, or praxis document using LaTeX. While helpful tips on LaTeX is included this is not intended to be a tutorial on how to write using LaTeX typesetting language. To use the package, unzip DedmanLatexTemplate.zip to your computer and open DedmanTemplate.tex in the LaTeX editor of your choice.

2 Files Included In This Package

DedmanTemplate.tex	This is the main file that organizes your paper. Chapter and appendix .tex files are included here as well as your bibliography file.
DedmanTemplate.pdf	The main template file with example text compiled into a PDF.
FrontPages.tex	This file constructs the required first pages of your thesis, dissertation, or praxis. The file is filled with example data and needs to be replaces with your document and personal information.
packages.tex	This file contains the list of packages that you want to utilize in constructing your LaTeX document. The file has been pre-populated with many common packages as well as some specialized ones. Use this file to add or comment out packages for your specific needs.

*Department of Engineering Management, Information, and Systems, Lyle School of Engineering, Southern Methodist University, Dallas, TX 75275 USA, theodore@smu.edu

DL_thesis_v2016	This is the style file that sets up your document to the 2016 SMU Dedman and Lyle Engineering Thesis Standards.
customcommands.tex	This is where you place all your custom LaTeX commands should you need to create them.
symbols.tex	This is where you place all your specialized symbols should you need to create a List of Symbols in your document. Not often used and is commented out in the FrontPages.tex. You will have to uncomment if you want to use symbols.tex.
.gitignore	This is a list of file type extensions to have Git or GitHub to ignore when replicating with a repository. See the below for more information about Git.
readme.tex	This file.
readme.pdf	This file compiled into a PDF.
abstract.tex	An example abstract.
acknow.tex	An example document acknowledgment.
chap1.tex	An example chapter one file.
chap2.tex	An example chapter two file.
app.tex	An example appendix file.
dedmanbib.bib	An example bibliography file.
fig folder	Folder for all example figures.
Dissertation_Image.png	An example figure located in the fig folder.
frog.jpg	An example figure for this document.

3 Some LaTeX Tools

Here is a list of some following tools to create a document in LaTeX:

Overleaf.com Overleaf is an online LaTeX editor that does not require any LaTeX binaries to be installed on your PC/Mac. Overleaf is the easiest way to get started. Signup for a free account, create a project, upload the template files, make DedmanTemplate.tex the main file, and start typing. The free account could be all you need, but if you have many files and images, you may need to upgrade to a student account. The drawback is that you have to be online.

TexStudio TexStudio is a LaTeX editing package that can be installed in Windows, Linux, OSX, and OS2. It organizes the document as a project and makes it easy to see the entire structure of your document. It compiles the pdf and allows you to view both side by side. See http://www.texstudio.org/ to learn more.

GitHub GitHub is a web-based Git repository hosting service. It offers distributed revision control and source code management (SCM). GitHub can be used alone as a backup/versioning repository or with Overleaf. Using with Overleaf allows you to edit your Overleaf files off-line. Any changes in Overleaf or on your PC can be synced. Always sync with GitHub before you edit on your PC and after you make changes on your PC. This avoids change conflicts. GitHub handles conflicts, but it is much easier to avoid them. You do not have to be a member of GitHub to use the GitHub Desktop with Overleaf. GitHub Desktop is available for Windows and Mac. See https://desktop.github.com/, https://www.github.com/ and http://www.overleaf.com/ for more information.

JabRef JabRef is an easy to use open source database application to keep track of all your references. It creates the bibtex.bib file for you. It is available for Windows, Linux, and Mac OSX. A nice feature is that you can attach your article PDFs to the reference so that you can easily jump to the article without searching for it. See http://www.jabref.org/ for more information.

Excel-to-LaTeX An Excel add-in that converts Excel spreadsheets to LaTeX tables. Supports the Booktabs style formatting and is a great way to create a table. See https://www.ctan.org/pkg/excel2latex?lang=en for more information. While the documentation says that it works up to Excel 2010, I use it in Excel 2013 with no issues.

4 Some LaTeX Examples from Overleaf.com

The following section and subsection is from Overleaf.com's sample file. It provides a good overview of simple LaTeX commands.

4.1 How to Leave Comments

Comments can be added to the margins of the document using the todo command, as shown in the example on the right. You can also add inline comments:

This is an inline comment.

Here's a comment in the margin!

Item	Quantity
Widgets	42
Gadgets	13

Table 1: An example table.

4.2 How to Include Figures

First you have to upload the image file (JPEG, PNG or PDF) from your computer to writeLaTeX using the upload link the project menu. Then use the includegraphics command to include it in your document. Use the figure environment and the caption command to add a number and a caption to your figure. See the code for Figure 1 in this section for an example.

Figure 1: This frog was uploaded to writeLaTeX via the project menu.

4.3 How to Make Tables

Use the table and tabular commands for basic tables — see Table 1, for example.

4.4 How to Write Mathematics

LaTeX is great at typesetting mathematics. Let $X_1, X_2, \ldots, X_n$ be a sequence of independent and identically distributed random variables with $\mathrm{E}[X_i] = \mu$ and $\mathrm{Var}[X_i] = \sigma^2 < \infty$, and let

$$S_n = \frac{X_1 + X_2 + \cdots + X_n}{n} = \frac{1}{n}\sum_{i}^{n} X_i$$

denote their mean. Then as n approaches infinity, the random variables $\sqrt{n}(S_n - \mu)$ converge in distribution to a normal $\mathcal{N}(0, \sigma^2)$.

4.5 How to Make Sections and Subsections

Use section and subsection commands to organize your document. LaTeX handles all the formatting and numbering automatically. Use ref and label commands for cross-references.

4.6 How to Make Lists

You can make lists with automatic numbering ...

1. Like this,
2. and like this.

... or bullet points ...

- Like this,
- and like this.

... or with words and descriptions ...

Word Definition

Concept Explanation

Idea Text

I hope this document and the associated template package is helpful for you. Good luck. - Ted C. Munger