How to Structure a Latex Document

Abstract

In this article, I shall discuss some of the fundamental topics in producing a structured document. This document itself does not go into much depth, but is instead the output of an example of how to implement structure. Its Latex source, when in used with my tutorial provides all the relevant information.

Introduction

This small document is designed to illustrate how easy it is to create a well structured document within \LaTeX\cite{lamport94}. You should quickly be able to see how the article looks very professional, despite the content being far from academic. Titles, section headings, justified text, text formatting etc., is all there, and you would be surprised when you see just how little markup was required to get this output.

Structure

One of the great advantages of LaTeX is that all it needs to know is the structure of a document, and then it will take care of the layout and presentation itself. So, here we shall begin looking at how exactly you tell LaTeX what it needs to know about your document.

Top Matter

The first thing you normally have is a title of the document, as well as information about the author and date of publication. In LaTeX terms, this is all generally referred to as top matter.

Article Information

%Set up an 'itemize' environment to start a bulleted list. Each %individual item begins with the \item command. Also note in this list %that it has two levels, with a list embedded in one of the list items.

- \title{title} - The title of the article.
- \date - The date. Use:
  - \date{\today} - to get the
    date that the document is typeset.
  - \date{date} - for a %\emph{} emphasises the specified text. Italics by default.
    specific date.
  - \date{} - for no date.

Author Information

The basic article class only provides the one command:

- \author - The author of the document.

It is common to not only include the author name, but to insert new lines (\\) after and add things such as address and email details. For a slightly more logical approach, use the AMS article class (amsart) and you have the following extra commands:

- \address - The author's address. Use the new line command (\\) for line breaks.
- \thanks - Where you put any acknowledgments.
- \email - The author's email address.
- \urladdr - The URL for the author's web page.

Sectioning Commands

The commands for inserting sections are fairly intuitive. Of course, certain commands are appropriate to different document classes. For example, a book has chapters but a article doesn't. %A simple table. The center environment is first set up, otherwise the %table is left aligned. The tabular environment is what tells Latex %that the data within is data for the table.

Command	Level
part{part}	-1
chapter{chapter}	0
section{section}	1
subsection{subsection}	2
subsubsection{subsubsection}	3
paragraph{paragraph}	4
subparagraph{subparagraph}	5

Numbering of the sections is performed automatically by LaTeX, so don't bother adding them explicitly, just insert the heading you want between the curly braces. If you don't want sections number, then add an asterisk (*) after the section command, but before the first curly brace, e.g., \texttt{\ section*{A Title Without Numbers}}. %Create the environment for the bibliography. Since there is only one %reference, set the label width to be one character (I shall follow %convention as use the number '9'. This is because it helps to remind %that it is the maximum number of refs that is now permitted by that %width).