

# Using L<sup>A</sup>T<sub>E</sub>X to Create Documents

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## Abstract

This document extends a previous paper on creating L<sup>A</sup>T<sub>E</sub>X documents. Examples are provided within the text of the paper, but the reader can also view the source code for further clarity. This paper was designed to create a web page version to post on the Internet.

## 1 Introduction

L<sup>A</sup>T<sub>E</sub>X is a text formatting program that is extensively used to produce scientific journals, textbooks, and many other publications. The software is able to take irregular blocks of text with embedded commands, and assemble a device independent file that can be displayed on a computer screen or sent to a printer.

Similar to HTML tags used for the World Wide Web, L<sup>A</sup>T<sub>E</sub>X commands direct the program to produce a formatted document including graphics. Some of the formatting may seem more difficult than HTML, but the richness available in L<sup>A</sup>T<sub>E</sub>X is amazing including mathematical symbols and even a separate tag for software's own name (`\LaTeX`).

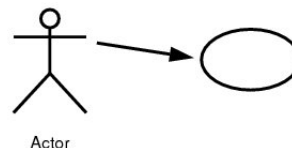
As of now, L<sup>A</sup>T<sub>E</sub>X remains a standard for document presentation in many scientific communities.

## 2 Some L<sup>A</sup>T<sub>E</sub>X Basics

There are some basic principles of L<sup>A</sup>T<sub>E</sub>X that can help a person organize a research paper. These will be described in more detail in each subsection below with code examples for reference.

### 2.1 Document Header or Preamble

The preamble of a L<sup>A</sup>T<sub>E</sub>X document contains a number of global parameters that will control the entire document. It is similar to a Cascading Style Sheet in HTML.



Above is a figure exported from dia to eps, then converted to .jpg. Compilation is done with pdflatex. The original image from dia needed to be cropped using Gimp, and re-saved as jpg. (The original image had a large amount of white space at the bottom)

## References

- [1] John December and Neil Randall, The World Wide Web Unleashed, Sams Publishing, 1994.
- [2] Helmut Kopka and Patrick W. Daly, A Guide to LATEX, Addison-Wesley Publishing Co., Inc., 1993.
- [3] Nikos Drakos and Ross Moore, LaTeX2HTML Translator Version 99.2 beta8(1.43), Macquarie University, Sydney, 1999.
- [4] Walker, Janice R. et al., "The Columbia Guide to Online Style", 1995.  
[http://www.columbia.edu/cu/cup/cgos/idx\\_basic.html](http://www.columbia.edu/cu/cup/cgos/idx_basic.html)  
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