

# L<sup>A</sup>T<sub>E</sub>X Fundamentals

## The Very Basics

L<sup>A</sup>T<sub>E</sub>X – short for Lamport-T<sub>E</sub>X, originated from Leslie Lamport – is the approach to create a more user-friendly and modern way to interact with the typesetting program T<sub>E</sub>X of Donald Knuth (abr. for Τέχνη, *art*).

The key ideas of L<sup>A</sup>T<sub>E</sub>X to take away are:

- Differentiate between the *content* and the *layout*: The former is written in a plain text editor of choice and is then *given* to the professional typesetter T<sub>E</sub>X.
- Forget your MS Word habits: L<sup>A</sup>T<sub>E</sub>X is capable of everything but the more you force it into special solutions, the more pitfalls will arise!

## Configurations

Configurations Usually blank line, in special environments (e.g. tables) \\...

### Installation

Linux	<code>apt-get install texlive-full</code>
MacOS	See <a href="http://goo.gl/UMzDfV">goo.gl/UMzDfV</a>
Windows	See <a href="http://goo.gl/Z19eiz">goo.gl/Z19eiz</a>

### Bare Minimum

```
\documentclass[options]{<class>
% Configurations go here
\begin{document}
% Document goes here
\end{document}
```

### Minimum Working Example

```
\documentclass[paper=a4]{scrartcl}
\begin{document}
Hello World!
\end{document}
```

Compilation:  
pdflatex yourdocument.tex

### Classes

<code>scrartcl</code>	Small documents, short articles/reports
<code>scrreprt</code>	Longer reports, seminar papers, smaller theses
<code>scrbook</code>	Long works like books or dissertations
<code>scrlettr2</code>	Letters

### Important Options

<code>paper</code>	a4, a5, letter, ...
<code>BOCR</code>	Longer reports, seminar papers, smaller theses
<code>DIV</code>	Long works like books or dissertations
<code>fontsize</code>	8pt, 9pt, 10pt, ...