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Module 5: \LaTeX

Lecture 0: What is \LaTeX



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T_EX is a language created by Donald Knuth to typeset documents attractively and consistently. Knuth started writing the T_EX typesetting engine in 1977.

What is L^AT_EX

L^AT_EX (pronounced either "Lah-tech" or "Lay-tech") is a set of macros for T_EX created by Leslie Lamport. Its purpose is to simplify T_EX typesetting, especially for documents containing mathematical formulae. Within the typesetting system, its name is formatted as L^AT_EX.

In addition to the commands and options LaTeX offers, many other authors have contributed extensions, called packages or styles, which you can use for your documents. Many of these are bundled with most T_EX/L^AT_EX software distributions; more can be found in the Comprehensive T_EX Archive Network (CTAN¹)

¹<http://www.ctan.org/>

L^AT_EX is NOT a word processor! Instead, L^AT_EX encourages authors not to worry too much about the appearance of their documents but to concentrate on getting the right content.¹

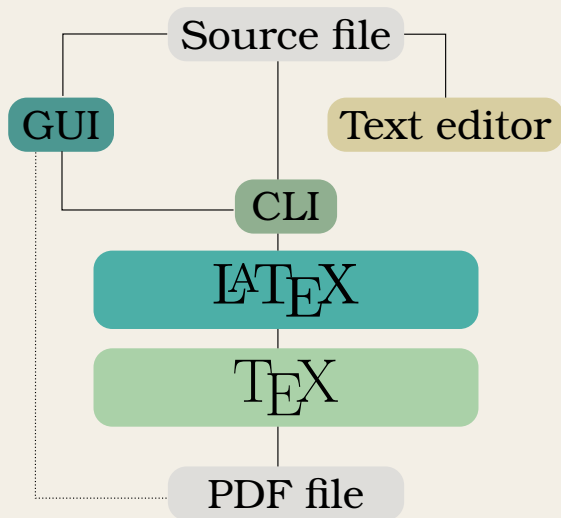
¹<https://www.latex-project.org/about/>

- ⇒ Professional-looking documents
- ⇒ Consistency throughout the document
- ⇒ Focus on the content
- ⇒ Easily change the style of the document
- ⇒ Writing in cooperation
- ⇒ It's free software (both as in free beer and free speech)¹

¹<https://www.gnu.org/philosophy/free-sw.en.html>

- ↪ Typesetting journal articles, technical reports, books, and slide presentations.
- ↪ Control over large documents containing sectioning, cross-references, tables and figures.
- ↪ Advanced typesetting of mathematics with $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX.
- ↪ Automatic generation of bibliographies and indexes.
- ↪ Multi-lingual typesetting.
- ↪ Using PostScript or Metafont fonts.

A document preparation system for high-quality typesetting.



What you can use L^AT_EX for

The image shows a musical score for guitar in 4/4 time, featuring a melody and a bass line. The melody is written in treble clef with a key signature of one flat (B-flat). The bass line is written in bass clef with a key signature of two flats (B-flat and E-flat). The score is divided into measures 1 through 9. Measure 1 contains a D chord. Measure 2 contains a Cadd9 chord. Measure 3 contains a G/B chord. Measure 4 contains a Gm/Bb chord. Measures 5 through 9 contain a sequence of notes with trills (tr) indicated above the notes. Below the score are four guitar chord diagrams corresponding to the chords used in the score: D, Cadd9, G/B, and Gm/Bb.

And the colours of the sea blind your eyes with trembling mermaids

What you can use $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ for

