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Getting started with L^AT_EX

What is L^AT_EX



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What is L^AT_EX

L^AT_EX is a system for high quality typesetting of documents.

L^AT_EX (first rel. 1984 by L. Lamport) is a set of macros for T_EX.

T_EX (first rel. 1978 by D. Knuth) is a low-level language created to typeset documents.

The purpose of L^AT_EX is to simplify T_EX typesetting.

L^AT_EX is extensible. Additional packages can be developed to add functionalities.

What L^AT_EX is NOT

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/>

Why use L^AT_EX

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

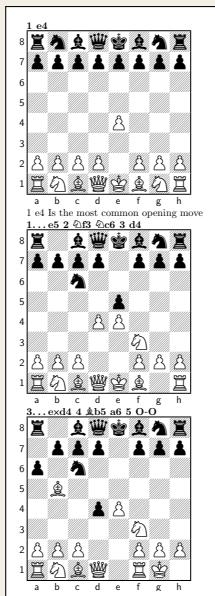
- Typesetting journal articles, technical reports, books, and slide presentations.
- Control over large documents containing sectioning, cross-references, tables and figures.
- Advanced typesetting of mathematics.
- Automatic generation of bibliographies and indexes.

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

What you can use L^AT_EX for

The image shows a musical score for guitar in 4/4 time, consisting of five staves. The first staff is the melody, starting with a quarter note G4, followed by quarter notes A4 and B4, then a dotted quarter note G4, and finally eighth notes F4 and E4. A fingering '2' is placed above the second measure. The second staff is a rhythmic accompaniment of eighth notes: G4, A4, B4, C5, G4, A4, B4, C5, G4, A4, B4, C5, G4, A4, B4, C5. The third staff is a bass line in 2/4 time, starting with a quarter note G3, followed by quarter notes A3 and B3, then a quarter rest, then quarter notes C4 and B3. Fingering '2' is above the first measure, '3' above the second, and '4' above the third. The fourth staff continues the bass line with quarter notes A3 and G3, then quarter notes F3 and E3, then quarter notes D3 and C3. Fingering '5' is above the first measure, '6' above the second, and '7' above the third. The fifth staff starts with a quarter note G3, followed by a quarter rest, then a quarter note G3, and ends with a double bar line. Fingering '8 tr' is above the first measure, 'tr' above the second, and '9' above the third. Below the score are four chord diagrams: D (x02321), Cadd9 (x02341), G/B (x02332), and Gm/Bb (x02331). Below the diagrams is the text: "And the colours of the sea blind your eyes with trembling mermaids".

What you can use L^AT_EX for



What you will take home

- Overview of L^AT_EX workflow
- L^AT_EX basic features including
 - Document's info (title, author)
 - Document sectioning
 - Inclusion of figures and simple tables.
 - Inclusion of simple math formulae
 - Bibliography management
- Know where/how to find further documentation about L^AT_EX.

Question

How \LaTeX compares to a word processor?

1. \LaTeX should always be used instead of a word processor
2. \LaTeX is obsolete compared to word processors but still required in scientific writing
3. They foster different approaches and the choice might depend on several factors

