

Introduction to LyX workshop

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Outline

- 1 Motivation
 - What is LyX?
 - L^AT_EX
- 2 LyX
 - Overview
 - Features
 - Philosophy
- 3 Demo
- 4 Further Reading

What is LyX?

Free document creation tool.

- Graphical frontend to L^AT_EX (I'll explain shortly)
- Available in many OSs (Windows, Gnu/Linux, OS X)
- Especially usefull for documents contains mathematical expressions.
- One dose not handle design, only content.
- Can export documents to PDF, HTML.

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L^AT_EX

A frontend to WHAT?!

- Once upon a time, computer scientist name Donald Knuth started writing a book, “The art of computer programming”.
- At a time, there was no good way typeset math. Wrote T_EX.
- Later: Extended to L^AT_EX.
- De-facto standard for publications in some disciplines.
- Numerous specific extensions.
- Coding a document.

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L^AT_EX: cont.

example

Example

```
\framesubtitle{A frontend to WHAT?!}
\begin{itemize}
\item Once upon a time, computer scientist name Donald Knuth
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a book, "The art of computer programming".
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\TeX{}.
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\end{itemize}
```


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- Not a standalone tool: Use \LaTeX to export documents.
- Support only part of \LaTeX functionality, and some of the extensions.
- One can (almost) always can do things manually.

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- Mostly useful for:
 - well-structured documents. (Like and article, homework sheet of this presentation).
 - Heavy use of mathematical equations.

¹Really. LaTeX is Turing-complete.

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- After some settings, good support in Hebrew.
 - Probably the 1st Free software that supported Hebrew.
 - But not all \LaTeX extensions support Hebrew as well.
 - No Hebrew inside math.
 - Should install special fonts (`culmus-latex`).
- Specific usage:
 - HTML export (+math).
 - Typeset IPA (if you're a linguist) commutative diagrams (if you're a mathematician) ,Feynman diagrams (if you are a physicist) or color-coded code (for everyone).
 - Trees & Graphs will require some \LaTeX code.
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- Automated index and table of content.
- Bibliography
- Extendable & Open source.
- And yes. $\mathcal{M}\forall\tau\hbar$.

Example (Mathematical expression)

$$\hat{f}(\xi) = \mathcal{F}(f)(\xi) = \int_{\mathbb{R}^n} f(x) e^{-2\pi i x \cdot \xi} dx$$

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- Document on screen is different then printed version.
 - On-screen document best fitted for on screen display. Printed document best fitted for read out from print.
 - “What you see is what you mean” and not “What you see is what you get”.

Demo

See also http://ktzr.us/lyx_pg.

For Further Reading I



A. Author.

Handbook of Everything.

Some Press, 1990.



S. Someone.

On this and that.

Journal on This and That. 2(1):50–100, 2000.