

Scientific Publications: A New Approach

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Lecture Outline I

1 LyX

- Installation
- Post-Installation

2 JabRef

- Introduction
- BibT_EX
- Creating References in LyX

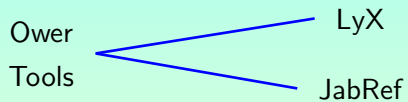
3 Naming Files and Folders

Lecture Outline II

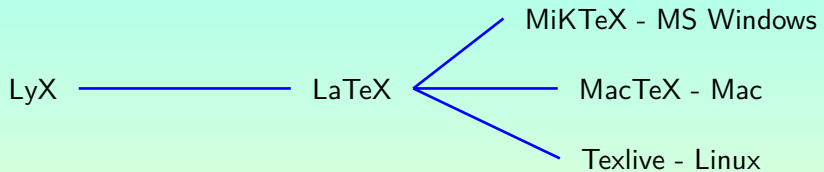
4 How to Start

- Required Software
- Creating Your Folders
- Single File Versus Multiple Files
- On the Run

Ower Tools



Ower Tools



Why LyX? I

- LyX uses T_EX which the best typesetting engine since the mid 1980s
- LyX is free and open source software (FOSS)
- LyX leaves you free to concentrate on writing content and do all professional format for you
- LyX is a **document processor** and not like MS **Word a word processor**
- LyX is particularly suited for editing many scientific publications e.g. articles, reports, books and even presentations

Why LyX? II

- LyX is platform independent, works on MS Windows, Linux and Mac
- LyX is a structural document processor, which means that every document should have a definite structure
- The structure of each document should be: title, author, part, section, subsection, subsubsection, paragraph, subparagraph and standard
- Citation: Flexible citation styles
- Bibliography and reference list styles
- Automatic appendixes

Import and Export I

- Import from plain text, \LaTeX files, EPS figures
- Import from .RTF, MS Word .doc and OO Writer .odf files, with the aid of some auxiliary software
- Export to plain text, \LaTeX , PostScript, PDF
- Export to .doc, .rtf and .odf
- HTML output with external tools like TtH and elyzer
- Can manually import HTML using 'html2latex', then import \LaTeX

References in LyX I

- The reference database tool which comes with LyX is BibTeX
- BibTeX citation style is completely malleable
- New fields can be defined. You can add fields to remind you where photocopies were
- Many standard citation formats available
- Many journals provide BibTeX templates

What You Don't Get With LyX: I

- TAB key
- Visual page breaks
- Horizontal scroll bar
- Any page layout tools
- >1 spaces = nothing done
- >1 returns (enter key) = nothing done

What Makes Word Processors Bad?

- Documents have no structure
- Users concentrate over layout too early, forgetting the most important thing: content
- It is very difficult to prevent layout inconsistencies

Kerning in Word Versus LyX

Table

Table

In the left is the MS Word kerning between T and a, on the Wright
is the LyX kerning

Major Defects in MS Word

Word generally produces ugly looking text compared to a typesetting program like LyX. The most common drawbacks are:

- 1 Kerning
- 2 Ligatures
- 3 Hyphenation and justification
- 4 Punctuation

LyX Versus Other Word Processors

It does not matter whether you enter one or several spaces after a word.

An empty line starts a new paragraph.



It does not matter whether you enter one or several spaces after a word.

An empty line starts a new paragraph.

Differences Between LyX and other Word Processors. LyX will not allow you to put extra spaces between words or paragraphs

Installation - Windows: I

Refer to Your LyX Template for Details

- Install MiKTeX
- Install LyX

Be Patient during installation

Installation - Linux: I

Very Easy - One Step

- Go to Synaptic package manager
- Search for LyX and install it

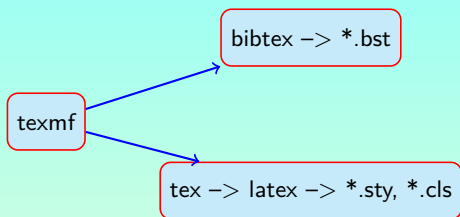
Post-Installation - Windows: I

- MiKTeX is a group of huge number of packages
- The installation you have made is a basic installation with some essential packages
- Therefore, for medico-dental fields you need to install some extra packages
 - elsevier-bib - biblatex-nature - biblatex-mla - biblatex-jura - biblatex-chicago - bibhtml - babelbib - biblatex-apa - biblatex-science - jurabib - natbib - persian-bib - xepersian - anyfontsize - pgf - pdfpages - arabi - arabtex - arabxetex - ps - tikz - elsarticle - elsevier - endfloat - endnotes - enumitem - koma-script - memoir - microtype - xcolor - units - colortbl - beamer - bibtopic

Post-Installation - Windows: II

- After installation, you have to “Refresh FNDB” and “Update Formats”

Standard TeX Directory Structure (TDS)(texmf)



Extra packages should be copied to your home folder in a standard TeX directory structure. This directory is named texmf. texmf contains two main directories, bibtex and tex. tex contains another directory named latex. In latex folder, you can put all .sty and .cls files you have downloaded.

Post-Installation - Linux: I

- TexLive is a group of huge number of packages
- The installation you have made is a basic installation with some essential packages
- Therefore, for medico-dental fields you need to install some extra packages

texlive-bibtex-extra- texlive-extra-utils - texlive-font-utils -
 texlive-fonts-extra - texlive-fonts-recommended -
 texlive-fonts-recommended-doc - texlive-formats-extra -
 texlive-generic-extra - texlive-generic-recommended -
 texlive-humanities - texlive-lang-arabic - texlive-latex-base -

Post-Installation - Linux: II

texlive-latex-extra - texlive-latex-recommended - texlive-luatex
- texlive-math-extra - texlive-metapost - texlive-pictures -
texlive-plain-extra - texlive-pstricks - texlive-publishers -
texlive-science - texlive-xetex

- You also may need to install the following packages: chktex - dvipost - gnuhtml2latex - groff - librsvg2-bin - linuxdoc-tools - mythes - noweb - rcs - sgmltools-lite - wv - elyxr - tex4ht - latex2rtf - unrtf - catdoc - gnumeric
- After installation, you have to go to terminal and run “ sudo texhash ”

Installation of Non-Standard Packages - Windows I

- You may need to install home-made or non-CTAN packages
- In Windows, it is recommended to install them in the following tree

- **Windows XP:**

Document class (.sty, *.cls or *.fd)

C:\Documents and Settings\your name\Application
 Data\MiKTeX\2.9\tex\latex\folder_name\file.sty

Bibtex style (*.bst) (bibliography style)

C:\Documents and Settings\your name\Application
 Data\MiKTeX\2.9\bibtex\bst\folder_name\your file.bst

Installation of Non-Standard Packages - Windows II

For LyX layout files

C:\Documents and Settings\your name\Application
Data\LyX2.0\layouts\file.layout

Then you have to run Start -> MiKTeX?? -> Maintenance ->
Settings -> Refresh FNDB and Update Formats

NB: You should run Maintenance and not Maintenance Admin

- **Windows Vista or 7:**

Document class (.sty, *.cls or *.fd)

You should put your downloaded document class in the
following directory

Installation of Non-Standard Packages - Windows III

C:\Users\your

name\AppData\Roaming\MiKTeX\2.9\tex\latex\folder

name*.cls or *.tex or *.sty

Bibtex style (*.bst) (bibliography style)

You should put your downloaded document class in the following directory

C:\Users\your

name\AppData\Roaming\MiKTeX\2.9\bibtex\bst\folder

name*.bst

LyX Layout File

You should put your downloaded document class in the following directory

Installation of Non-Standard Packages - Windows IV

C:\Users\your name\AppData\Roaming\LyX2.0\layouts\your
file.layout

Then you have to run Start -> MiKTeX?? -> Maintenance ->
Settings -> Refresh FNDB and Update Formats

NB: You should run Maintenance and not Maintenance Admin

- After installation, you have to “Refresh FNDB” and “Update Formats”

Installation of Non-Standard Packages - Linux I

- You may need to install home-made or non-CTAN packages
- In Linux, it is recommended to install them in the following tree

Document class (.sty, *.cls or *.fd)

You should put your downloaded document class in the following directory

`/home/your name/texmf/tex/latex/folder name/*.cls or *.tex`
 or `*.sty`

Bibtex style (*.bst) (bibliography style)

You should put your downloaded document class in the following directory

Installation of Non-Standard Packages - Linux II

`/home/your name/texmf/bibtex/bst/folder name*.bst`

LyX Layout File

You should put your downloaded document class in the following directory

`/home/your name/.lyx/layouts/your file.layout`

- After installation, you have to go to terminal and run “`texhash ~/texmf`”

Always Remember

Always after every new installation of packages, go to LyX, Click on Tools → Reconfigure

Sorrow – Mahmoud Mokhtar



JabRef - Introduction I

- JabRef is a reference management software that uses BibTeX as its native format
- JabRef provides an easy-to-use interface for editing BibTeX files, for importing data from online scientific databases, and for managing and searching BibTeX files.
- JabRef is a free open source software (FOSS)
- JabRef is programmed in Java, and is platform independent running in Windows, Linux and Mac OS X

BibTeX - A Reference Management Software I

- BibTeX is a software for creating bibliographies in LyX, L^AT_EX and T_EX documents
- One needs only to maintain one database file, which can then be read into any number of documents

Automatic Versus manual references

Advantages over making manual references include:

- Consistency in presentation of citations
- Consistency in presentation of reference lists
- Ease of changing bibliography style
- Correct numbering and sequential ordering of entries
- Only entries in the bibliography of the final document are those that are cited in the body of the document

Citation and reference list:

Review of Literature

Diabetes is a dangerous disease (Adair, 2005) & (Armour et al., 1995). So there reference (Bassin et al., 2006). and here is a book (Neville et al., 2008)

This is the citation, also known as reference in text

References

1. Adair SM: Fluoridation then and now. *Pediatr Dent* 2005, **27**(4):270.
2. Armour KJ, Smith NW, Brown BL, Dobson PR: Interleukin-1 beta induces the synthesis of adenylyl cyclase in Swiss 3T3 fibroblasts and MG-63 osteosarcoma cells. *Biochem Biophys Res Commun* 1995, **212**(2):293-299,

This is the reference, also known as reference list or bibliography list

Citation or “reference in text” is the name of the author you put into your text, while, references or “reference list” is the list containing all your sources of authors usually found at the end of your document.

Creating References in LyX

Two Easy Steps

1

Select Citation Style by selecting Document > Settings > Bibliography > Natbib > Numerical or Author-Year

2

Select Reference List Style by Clicking on Bibtex Created Bibliography and Selecting Style from the Drop Down Combo Box

Four Never(s)

In Order Not to Regret Later:

Sometimes we regret things that we haven't done

- Never name your files or folders in Arabic
- Never put spaces in file or folder names, use “ - ” or “ _ ”
- Never do deep nesting (> 7)
- Never use any special characters such as %, !, : or ?

Tips and Tricks I

- 1 Keep the names of your files and folders as short as you can, yet keep them descriptive as possible
- 2 Use shortcuts and shortcut links instead of multiple copies
- 3 Name files to be sorted sequentially as follows, 01, 02, 03 and so on. If your files will be greater than 99 file you can name them as 001, 002, 003, and so on. A good example:
 - 1 01-scc-fibronectin-01-X10.tif
 - 2 02-scc-fibronectin-02-X20.tif
- 4 For file names with dates, use the format YYMMDD, for example 090611 for 11 June 2009

Required Software I

- ① Word processor
 - ① Microsoft Word - **proprietary**
 - ② Open Office Writer - FOSS

- ② Spread sheet programs
 - ① Microsoft Excel - **proprietary**
 - ② Open office Calc - FOSS
 - ③ Gnumeric - FOSS

- ③ Image manipulation programs
 - ① Adobe Photoshop - **proprietary**
 - ② Gimp - FOSS

Required Software II

- ④ Vector graphics editor
 - ① Adobe Illustrator - **proprietary**
 - ② Inkscape - FOSS

- ⑤ Billiographic editor
 - ① JabRef - FOSS
 - ② Bibus - FOSS

Creating Your Folders I

- 1 Make a new **folder** for your thesis or article e.g.
thesis-master-adel
- 2 Create **sub-folders** in the main folder of your thesis or article.
These sub-folders should be as follows:
 - 1 **figs** - for figures
 - 2 **tables** - for tablses
 - 3 **ref** - for references.bib
 - 4 **stat** - for statistical results
 - 5 **pdf** - for reference articles in pdf
 - 6 **html** - for reference articles, data sheets, etc in .html
 - 7 **misc** - for unsorted or temporary files

Single File Versus Multiple Files

Some students prefer multiple files:

- A file for title
- A second file for introduction
- A third file for review of literature
- And so on
- And of course, you should have a parent file to collect all child files

I personally prefer to make the thesis or article as one large file

Single File - Pros and Cons

- Pro
 - 1 Easier to keep track of your files and different versions
 - 2 Easier to convert to PDF
- Con
 - 1 If your file is very large, saving, opening, copying, etc. can become very slow
 - 2 The larger your file, the greater your loss if a small error in any part of it corrupts the whole thing

Multiple Files - Pros and Cons

- Pro
 - ① Your individual small files will open relatively quickly
 - ② If any one file becomes corrupted, you don't lose your whole document
- Con
 - ① File management becomes more complicated: you need to keep track of more files and versions. It becomes easier to accidentally mix and match old and new files.
 - ② It takes a little more work to convert multiple files to a single PDF

On the Run

Open thesis template

Rename it to a suitable name

Begin your work

And that is all

Column Example 1: I

Column Number 1
soso and mimi

Column Number 2
toto and lolo

Column with Block Example 1: I



^aThis is my faculty label

Observation 1

Do Not Eat Any Meat

Observation 2

Do Not Eat Any Fool (Fasia Faba)

Conclusion

You Will Die From Cachexia

Column with Block Example 2: I

Column 1 Header

Column 1 Body Text

Column 2 Header

Column 2 Body Text