

Neat LyX Features

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It is possible to Use a Personal Template (but I usually forget).

- ▶ When LyX creates a new document, it starts from the default settings. That involves 100s of settings.
- ▶ If you revise your settings under Document-Settings, and choose “make default,” that will put many settings in your next new document.
- ▶ It also has a “template” feature, so you can save a document and then its settings will become default.

But I Forget To Use Templates

- ▶ Unfortunately, I almost always forget templates. And I kick myself every time.

As a result, with every new document, I begin with the “article” document type and the default margins and such.

- ▶ One-by-one, put that right. In Menu: (Document/Settings)
 - ▶ change document types (DocumentClass: Article (KOMA))
 - ▶ set margins (Margins: 1 inch all around)
 - ▶ choose fonts (Fonts: Choose Latin Modern)
 - ▶ choose a language encoding (English)
- ▶ Preamble: Find some document that DID WORK and copy its preamble
 - ▶ for listing output and auto-centering of figures.
 - ▶ If you look in the pre-ample of this document, you should

Be Cautious About...

1. Copy-And-Paste from Adobe Acrobat or Firefox. If you copy a character from a different alphabet, or a different “document encoding”, there will be a long battle to get rid of it (errors will concern “unrecognized characters in document encoding”)
2. Compile document OFTEN so that mistakes can be found early.

Math Shortcuts

Remember:

Control–m

to insert math inside the line

Control–Shift–m

to insert a centered math “display equation”.

On my system, the L^AT_EX “math menu” pops up when I am in math mode.

I don't use the math menus as often as I expected. But I remember enough to do most of what I do.

LyX helps me learn L^AT_EX

- ▶ Watch the output in the very bottom “status bar” of the LyX display. If there is a L^AT_EX symbol shortcut, the system tells you so.
- ▶ Turn on “View Source”
Newer LyX editions have introduced the most fabulous feature. A small window at the bottom shows you what the L^AT_EX code would be for your document.
- ▶ If I ever have to write in “pure L^AT_EX” while in an editor like Emacs, I will keep LyX open and use to find out what I ought to do.

Export from $\text{L}\gamma\text{X}$ to $\text{L}\text{A}\text{T}\text{E}\text{X}$

If you create a document in $\text{L}\gamma\text{X}$, it can be exported to $\text{L}\text{A}\text{T}\text{E}\text{X}$, which you can then process “manually” with `pdflatex` or `latex` or `xetex` or any other processing system you like.

Floating and Nonfloating Graphics.

A large figure should be inserted into a “float”, a large thing that the \LaTeX processor can move about. If you don’t like the resulting position, it is possible to change it by right clicking on the float’s “inset” box. Choose “Here definitely” or “here is possible”.

If you want a figure to be in the automatic numbering sequence, you need to put it in a float. This way, it can automatically end up in the list of figures.

However, remember that not all graphics must be in floats. A small graphic that you don’t want to be numbered can be inserted as graphics, and it will stay where you put it.

Cross References are awesome

Equations are not numbered automatically, but if you click in the equation and insert a label, then it will be numbered. After that, go to another part of the document and Insert -> Cross Reference.

The same is true for figures and tables. If you insert a “label” in the caption of a figure or table, then you can use that as a cross reference.

Avoid “mousing” too much.

I developed chronic tendonitis by using a computer mouse too often. I find that remembering just a few keyboard shortcuts really helps.

For example:

Alt-p i begins a itemized bullet-list

Alt-p e begins a numbered list

Alt-p s returns to standard paragraph format

Control-M begins math mode

– (underscore) in math mode begins a subscript

^ (caret) in math mode begins subscript

\sum gives a large summation sign, either inline as \sum or displayed

$$\sum \quad (1)$$

Alt-x opens a “mini window” at bottom where you can type commands using TAB completion. Mostly, I use that for “listings-” and then hit TAB to

Customizing

That reminds me, I fiddled my keyboard settings so I would automatically get equation numbers. I avoid a lot of right clicking in that way. You can do that too. Under Tools -> Settings->Preferences->Editing, there is a menu for keyboard bindings. It writes a file called "bind" that is in your LyX preferences directory. Here is my bind file.

```
## This file is automatically generated by
  lyx
## All modifications will be lost
\unbind "C-M-n" "command-sequence
  math-display; math-number-toggle;"
\unbind "C-S-m" "math-display"
\unbind "C-S-n" "buffer-new-template"
\bind "C-S-m" "command-sequence
  math-display; math-number-toggle;"
\bind "C-M-n" "math-display"
\bind "C-S-n" "math-display"
```

BibTeX format for references I

\LaTeX existed before modern programs like Endnote. Affiliated with \LaTeX is a storage format for bibliography items. The BibTeX format uses plain text files to store references like this:

```
@book{jackman_bayesian_2009 ,  
address = {Chichester , {UK}},  
title = {{B}ayesian Analysis for the Social  
Sciences},  
publisher = {John Wiley \& Sons, Ltd},  
author = {Simon Jackman},  
year = {2009}  
},  
@article{stigler_who_1983 ,  
title = {Who Discovered Bayes 's Theorem?},  
volume = {37},  
number = {4},
```

BibTeX format for references II

```
journal = {The American Statistician},  
author = {Stephen M. Stigler},  
year = {1983},  
pages = {290--296}  
},
```

bib maintenance I

Zotero is a Firefox web browser addon that can help you to build a collection of citations. As you browse the web, you find that many websites offer standardized citations that Zotero can “grab”. I recently wrote a paper using citations collected in that way. I believe I could not have done it in the “old fashioned” way (type a paper, type up a biblio). <http://pj.freefaculty.org/stat/Johnson-mc-20100809.pdf>

How can you do that?

Follow the Stuff Worth Knowing advice to integrate your bibliography file with your LyX document. Use LyX Insert -> Citation to pick citations, and when you view the document, the references you actually cite magically appear in the output.

Should you use Endnote? I say NO, because

bib maintenance II

- ▶ it is a commercial piece of technology that you may become obligated to buy. KU allows you to have it for free now, something like a “free sample.” But someday, you will have to start paying.
- ▶ exportation of citations from Endnote to other formats is not fool-proof. That is generally true of all citation managers, including Zotero. The only difference is that Zotero is an open source project, so it is possible for you—or people like you—to fix problems, whereas Endnote users are stuck waiting for a company to help them.
- ▶ In 2010, I worked with one of our grad students (Joseph Zhou) to customize the appearance of article headings, sections, and bibliographic entries for political science journals. Once we realized that there is a more-or-less standard approach to the problem, I believe this was not too difficult.

Spell Checker

LyX 2.0 introduces “flyspell”, the instant underlining of mis-spelled words. That is one of the features of MS Word that people like.

Also can spell check in the old fashioned way. Choose Tools -> Spellcheck, you will see what I mean.