

LyX - the document processor

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Something a bit different today - dipping into the technology pool.

So, why would your favorite scholarly scribe write about Lyx, the document processor? Well, to quote Obi-Wan, it is an elegant weapon for a more civilised age.

A lot of people who have published articles in academic journals will know the \LaTeX markup language. This is particularly used in the natural sciences as \LaTeX is extremely powerful for creating formulae and reaction diagrams.

Lyx is an attempt to bridge the gap between WYSIWYG - *What You See Is What You Get*¹ - and \LaTeX , which, while creating some very elegant print-quality documents, is not particularly easy to get into. I have worked with \LaTeX from time to time, and it takes quite a while to wrap your head around. LyX is not a text editor - in the sense that it is not just intended for entering text like you would do in an application like Vim, Emacs or the infamous Windows Notepad; the focus of LyX is to create documents ready for printing. Like \LaTeX , it makes use of typographical conventions of using no more than a certain number of characters on a line to enhance readability, inserting spacing of a certain size in the text and so on. This makes for beautiful and very readable documents.

The screenshots here are using LyX on my Slackware Linux laptop, but LyX is also available for Microsoft Windows, MacOS X and even OS/2. You can get it from the LyX download page. LyX is Free Software published under the GNU General Public License 2.

As a final note before I move into the main review, I should say that I am a linguist and writer, not a mathematician. This means that I will be focusing on what one will be using for document preparation, not the mathematical

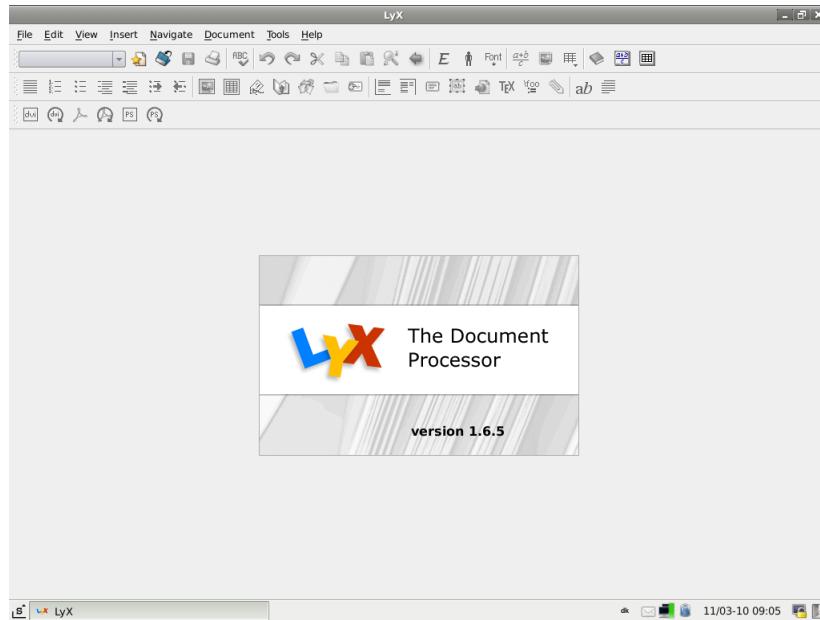
¹Applications like OpenOffice, Abiword, Microsoft Word and the like.

WYSIWYG vs
 \LaTeX

Multi-
platform
application

features. For those interested in this, there is a brief mathematics intro on the LyX walkthrough. It seems to mostly use L^AT_EX syntax for that. LyX is quite well-documented for professional linguists, however – there is a dedicated LyX for linguists page.

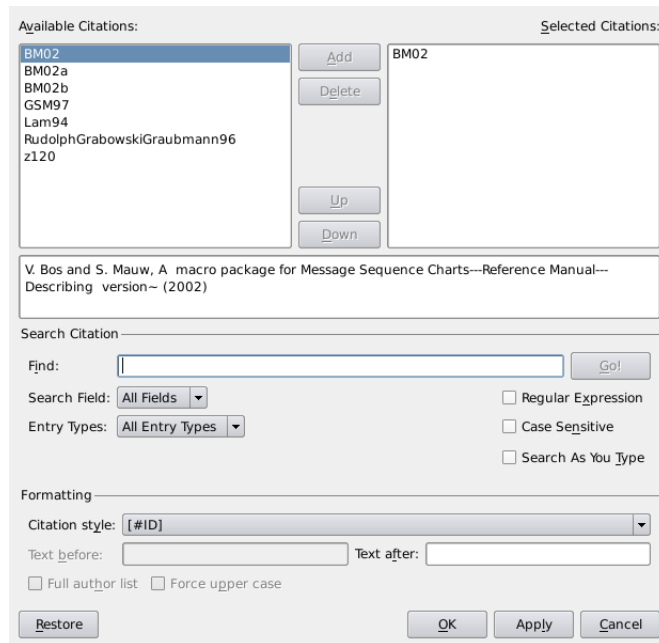
For mathematicians



As you see, the main screen is not much different from a lot of text processors. The interface can be accessed by using a mouse, but one will notice that holding the pointer over a button will show both the function and the keyboard shortcut; so the people behind the application encourage keeping your hands on the keyboard, which makes for less interruption in your work and less strain, which is a constantly increasing problem.

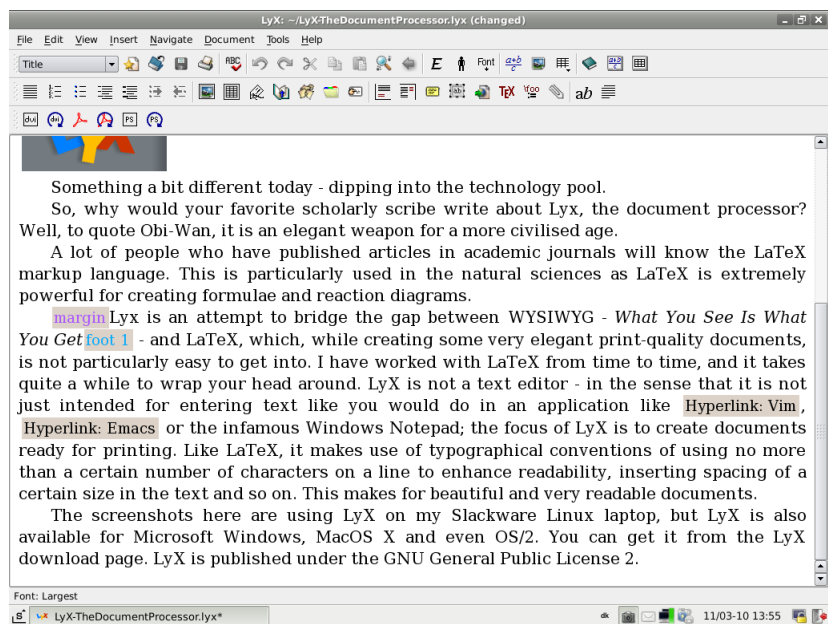
Setting up the environment

LyX follows the main principle of L^AT_EX, which means that the first things one does is define which kind of document it is – article, book, letter – and there are certain designs included as pre-defined article types to match the requirements of various journals or institutions.



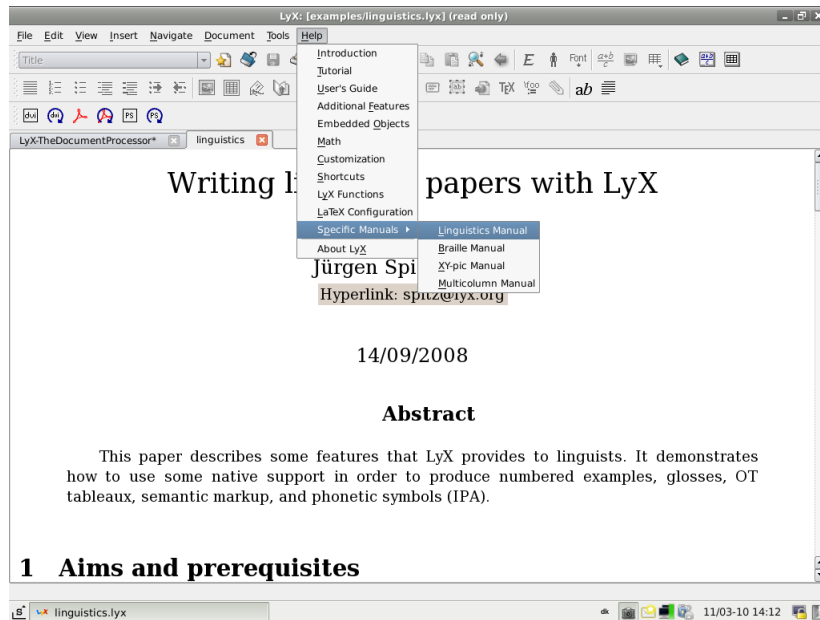
Actually, the area of bibliography is one of the places where LyX really shines; it is one of the places you can see that the system is intended for the academic community. The whole intention of these systems is to use some fairly simple files, mark them up to indicate what is to go where and then leave the system to output the materials in the format you want. Lyx will import your bibliography file for reference. Using the citation manager, a citation for the relevant source will be inserted as an endnote. In this way, your bibliographical notes will be kept up to date as you move them around, add or remove. It is quite likely you will not want to use all the books you have been reading underway in your work, and this way the list will be kept correct – and formatted as your article or book style dictates it should be.

Bibliographies
& inserting
citations



What you see here is the basic text editing window. As you see, the text indicates the features inserted there. Personally, this reminds me of the Reveal Codes feature from WordPerfect. Again, more practical than \LaTeX because it still keeps the text readable.

There are some very basic – and I believe this to be intentional – graphical effects. It is possible to insert images (extremely less complicated than with \LaTeX), lines and boxes. The program is focused on text and text-derived graphics, which means that the functions for making tables and diagrams are well-equipped.



As I mentioned earlier, LyX has quite a bit of documentation, but this is not limited to the website. As an interesting approach, a lot of documentation is included as LyX files, which means that you can read the documentation as well see it in a final formatted version after processing it. Since LyX creates files for print, it focuses on export to print-oriented format. There are buttons on the toolbars for creating and updating DVI, PDF and PostScript files. And so, the documentation documents also serve as example files.

Documentation

If you are working on a thesis or a longer project, try out LyX. The application is quite powerful compared to the system resources it requires, and it scales remarkable well for very heavy documents, also working quite well with pulling in external documents. I have edited a very heavy lab manual for a biomedical conference with a lot of graphs and hi-res images on a fairly low-specification machine.