

LyX Frequently Asked Questions with Answers

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Abstract

This is the list of Frequently Asked Questions for LyX, the Open Source document processor that provides a What-You-See-Is-What-You-Mean environment for producing high quality documents. For further help, you may wish to contact the LyX User Group mailing list at lyx-users@lists.lyx.org *after* you have read through the docs.

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*If you have comments or error corrections, please send them to the LyX Documentation mailing list, [<lyx-docs@lists.lyx.org>](mailto:lyx-docs@lists.lyx.org).

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1 Introduction and General Information

1.1 What is L_AT_EX?

L_AT_EX is a program that provides a more modern approach to writing documents with a computer, an approach that breaks with the obsolete tradition of the “typewriter concept.” It is designed for authors who want professional output quickly with a minimum of effort without becoming specialists in typesetting. The job of typesetting is done mostly by the computer, not the author; with L_AT_EX, the author can concentrate on the contents of her writing.

L_AT_EX provides an “almost-WYSIWYG” view of the document. “Almost” means that the line- and page-breaks are not displayed exactly as they will appear in the printed document. However, that’s not really necessary, since L_AT_EX uses a separate typesetter program (called L^AT_EX) to perform the final formatting of your text. While L_AT_EX contains everything it needs to be a comfortable user interface, the typesetting program contains everything necessary to format text, and do so very, very well.

So, line- and page-breaks aren’t your problem anymore. Remembering which number to use for the next subsection isn’t your problem anymore. Recalling what font you used for all of your section headings isn’t your problem anymore. You tell L_AT_EX (and L^AT_EX) what *kind* of document you’re editing and what *type* of paragraph this-or-that text is, the computer can typeset it accordingly. Of course you can also still do some low-level formatting for fine-tuning. However, the proper way with L_AT_EX is to tell the computer what the text *is*, not what it should look like. So, we like to say that L_AT_EX gives you WYSIWYM editing (What You See Is What You *Mean*).

1.2 That’s fine, but is it useful?

Absolutely. The following type of documents have been produced with L_AT_EX:

- Memos
- Letters
- Dissertations (260 pages in a single document, longer using include files)
 - for example, <http://www.fee.uva.nl/scholar/mdw/leuven/thesis.pdf>
- Lecture notes (133 pages, 27 figures on a 33 MHz 486 machine!)

- Seminar notebooks (500+ pages)
- Conference proceedings (Proceedings of the Second Continental Workshop on the Geoid in Europe, (Finnish Geodetic Institute Report 98:4), 292 pages)
- Software Documentation (the LyX User Guide is about 120 pages)
- Books
 - see <http://www.postgresql.org/docs/awbook.html> for an example on PostgreSQL
 - Donnay, J-P., Barnsley, M.J., and Longley, P.A., eds., 2001, Remote Sensing and Urban Analysis (Taylor and Francis: London).
 - Herbert Voss: Praktische Kryptologie mit Java 286 pages, lots of equations, tables, figures. ISBN 3-8311-1458-7
 - Yann Collette and Patrick Siarry, Optimisation multiobjectifs, 2002, Eyrolles
- Papers published in the following refereed journals:
 - Astronomy & Astrophysics (Suetterlin, P. 1998, A&A, 333, 305; Suetterlin, P. & Wiehr, E. 1998, A&A, 336, 367)
 - Astronomical Journal (Ressler, M. E. & Barsony, M. 2001, AJ, 121, 1098)
- Novels (400+ page novel due out in September 2000; an 836 page novel is currently with an agent)
- Scripts for plays and movies
- Business proposals for > \$1 M (US)

1.3 Where do I start?

The website www.lyx.org is the first place to go for anything related to LyX. News, examples, downloads, and lots of other stuff is available there. After you have installed LyX and started it the first time, read the Tutorial (Help> Tutorial). Yes, I really mean that.

Another basic introductory guide may be found at www.bilkent.edu.tr/~robin/lyxguide.pdf

1.4 Does LyX run on my computer?

At this time, you need to have the X Window system to run LyX. OS/2 and Win32 ports exist, but you need to have an Xserver installed and running on these systems. LyX is known to run on the following platforms (and probably a zillion others):

- Linux: RedHat 4.2, 5.0, 5.1, 6.0, 6.1, SUSE 5.x, Mandrake 7.0, 7.2
- SparcLinux: RedHat 6.0
- Sun Solaris 2.6, 2.7
- Tru64 Unix 4.0f
- HP-UX
- OSF1 flore V4.0 1091 alpha

1.5 How much hard disk space does LyX need?

On my system, the LyX binary consumes 2.0 MB of disk space, while the supporting files occupy another 12.6 MB (9.1 MB of which is consumed by the docs! You can delete the languages you don't care about to save some space). Of course, you do need to have something like teTeX installed which consumes a mere 115 MB, as well as ghostscript, which is another 10 MB!

1.6 Is LyX really Open Source?

Yes. The freely available X toolkit that LyX uses, xforms, was until recently closed source. Also the other toolkit that LyX uses, Qt, although a proprietary product of Troll Tech, is used in its open source variant. The LyX source itself is available under the GPL, so it qualifies.

Version 1.0 of xforms is available under the LGPL and its sources (and binaries) can be found from <http://savannah.nongnu.org/download/xforms/xforms-1.0.tar.gz>, which however requires some tinkering to get running. Qt tends to come with your distribution.

2 Internet Resources

2.1 Where should I look on the World Wide Web for LyX stuff?

- www.lyx.org
- bugzilla.lyx.org, if you want to report a bug in LyX.
- www.devel.lyx.org, if you are interested in the real blood and guts.

- Known mirror sites include:

- www.mx.lyx.org
- www.no.lyx.org
- www.it.lyx.org

2.2 Where can I get L^AT_EX material by FTP?

- [ftp.lyx.org](ftp://ftp.lyx.org/pub/lyx) in `/pub/lyx` (also known as [ftp.via.ecp.fr](ftp://ftp.via.ecp.fr))

2.3 What mailing lists are there?

- lyx-announce@lists.lyx.org (very low volume), for announcements related to L^AT_EX
- lyx-users@lists.lyx.org (medium volume), for general usage issues
- lyx-devel@lists.lyx.org (high volume), for development and debugging issues
- lyx-docs@lists.lyx.org (excruciatingly low volume), for documentation issues

Generally, you would send email to lyx-foo-subscribe@lists.lyx.org to subscribe to these lists or to lyx-foo-unsubscribe@lists.lyx.org to unsubscribe, where “foo” is one of “announce”, “users”, “devel”, or “docs”; definitely see <http://www.lyx.org/internet/mailling.php3> for the full details.

2.4 Are the mailing lists archived anywhere?

Yes. :-)

2.5 Okay, wise guy! Where are they archived?

- Announce: <http://www.mail-archive.com/lyx-announce@lists.lyx.org/>
- Users: <http://www.mail-archive.com/lyx-users@lists.lyx.org/>
- Devel: <http://www.mail-archive.com/lyx-devel@lists.lyx.org/>

3 Compatibility with other word/document processors

3.1 Can I read/write L^AT_EX files?

Yes. L^AT_EX outputs L^AT_EX files that are either machine or human friendly. The `tex2lyx` program that comes with L^AT_EX does a decent job of converting L^AT_EX

into LyX. It's not perfect, but it will usually get at least 95% of the job done for you.

3.2 Can I read/write Word files?

Not trivially. People have had some level of success with the following sequence: LyX→L^AT_EX→RTF→Word, and vice versa. However, Word is inherently not a markup language like LyX and L^AT_EX are, so conversions are usually difficult and almost meaningless.

However, here are a few suggestions which were sent in:

word2x produces L^AT_EX, HTML and plain text output. The L^AT_EX is im-
portable in principle (and is rather clean) but I often prefer plain text and
add the formatting back in. (This requires that you have knowledge on
the original formatting). On last writing did not yet handle Office 2000
Word.

wvware (found at www.wvware.com, or the abisource CVS repository for the
latest). This was previously called msWordView. Very good, only tends to
produce visually formatted L^AT_EX/HTML. Is however highly configurable:
a config file `wvLaTeX.xml` guides the translation process. Handles also the
newest Office formats.

Ted This is the editor to use when someone sends you an RTF file created by
Word. Fine product. Mail yourself the converted version (plain text or
HTML).

Finally, when all else fails, use any word processor (WordPerfect, StarOffice/OpenOffice,
...) which understands Word. Then export as the file as plain text and add the
formatting by hand in LyX.

For me personally, at least, it's faster doing this than cleaning up attempts
at a conversion, though it is certainly unsatisfactory if you need to go back and
forth a lot.

3.3 Can I read/write HTML files?

You can output HTML files using the "tth" converter program, amongst others.
There may be a HTML→L^AT_EX program available which allows you to convert
the other direction.

4 Obtaining and Compiling LyX

4.1 What do I need?

- LyX source code: `lyx-1.x.x.tar.gz`
- XForms library: `xforms-0.88` or higher (using the latest version available
is recommended)

- A \LaTeX installation: we strongly recommend $\text{te}\LaTeX$ -1.0 or higher
- A PostScript[®] interpreter: ghostscript 7.0 or higher
- A modern C++ compiler. If you are using gcc, LyX requires at least version 2.95.2.

4.2 How do I compile it?

- `./configure`
- `make`
- `make install` (usually as root, though you don't have to be if you add flags to the configure command)

See the `INSTALL` file for more details.

4.3 I hate compiling. Where are precompiled binaries?

Most of the above packages are available as precompiled binaries for a variety of Linux systems, perhaps others as well. The LyX binaries are available as RPMS and a few other formats and may be obtained from `ftp://ftp.lyx.org/pub/lyx/bin/`.

5 Questions about Evil Red Text (IMPORTANT!)

5.1 What is Evil Red Text (aka ERT)?

ERT (Evil Red Text) refers to raw \LaTeX commands which are inserted into your LyX document. Certain troglodytes in the development group coined this term when they complained about the unsightly appearance it leads to in LyX documents. The more enlightened among us know that it is extremely useful, even though it does qualify as URT (Ugly Red Text), but ERT seems to have stuck.

5.2 How do I enter Evil Red Text?

Aesthetic arguments aside, many of the answers in this FAQ require that you use ERT, so whenever we say “insert the following \LaTeX code”, do the following

1. Click the TeX toolbar button or select `Insert > TeX` .
2. Type the command as it is written in the normal way

5.3 The new ERT inset is really inconvenient !

A lot of people have been complaining about the ERT inset introduced in version 1.2.0. However, since there is little hope of to see the old \LaTeX font return from the grave (it was really a hack), here are a couple of things to ponder:

- You can collapse the ERT like any other floats by using `Edit` \triangleright `Open/Close float` (bound to `C-i` by default)
- You can also set it to “inlined” by using the properties dialog obtained by right-clicking anywhere in the inset

5.4 Is there an alternative?

\LaTeX commands can also be inserted in the “ \LaTeX Preamble”, a form in LyX that is inserted verbatim into the \LaTeX file which is generated during processing. This is especially useful for including nonstandard \LaTeX packages, defining global shortcuts to be used within the document, etc.

6 Questions Related to Using LyX

In this section, we attempt to address the truly most frequently asked questions. For a broader range of not-so-frequently asked questions and many “how do I?” topics, see Herbert Voss’ spectacular collection at <http://tug.org/TeXnik/>. You are doing yourself a large disservice if you don’t check there before sending a message to the mailing lists!

6.1 General questions

6.1.1 How do I get rid of the date under the title?

The simplest solution is to open the menu `Layout` \triangleright `Preamble` and add the line

```
\date{}
```

in the preamble window.

6.1.2 How do I change the spacing in an Itemize/Enumerate/Description list environment?

You’ll have to do this by hand: for example, for one particular list, you can add the following \LaTeX code at the beginning of the list:

```
\setlength{\itemsep}{0mm}
```

6.1.3 How do I number equations by section?

Add the following two lines to your \LaTeX preamble:

```
@addtoreset{equation}{section}  
\renewcommand{\theequation}{\thesection.\arabic{equation}}
```

6.1.4 Is it possible to do this for figures and tables as well?

Replace the phrase `\theequation` with `\thetable` or `\thefigure` and then replace `equation` with `table` or `figure`. Don't forget to adapt the `\@addtoreset` command, too.

6.1.5 How do I change to footnote numbers to symbols (star, dagger, etc.)?

Add `\renewcommand{\thefootnote}{\fnsymbol{footnote}}` to your \LaTeX preamble.

6.1.6 How do I kill widows and orphans?

Okay, we are not playing Duke Nukem here! To eliminate widows and orphans (first line from a paragraph at the bottom of the page and the last line from a paragraph at the top of the page), add the following to the \LaTeX preamble:

```
\widowpenalty=10000
\clubpenalty=10000
```

and perhaps

```
\raggedbottom
```

6.1.7 How do I get a formatted list which starts with e.g. 1. a)?

If you want a list which looks like

1. a) First alternative
- b) Second alternative
- c) Third alternative

then try the following

1. {}
 - a) First alternative
 - b) Second alternative
 - c) Third

where `{}` is in ERT (i.e. a placeholder not generating output. Specifically, set the style to “enumerate”, enter the brackets in ERT, change the environment depth, and add the three elements. \LaTeX will auto-label the entries.

6.1.8 How do I count words in \LaTeX ?

Run a spellcheck; it will display the total number of words checked. Make sure the cursor is at the top of the document when you start the spellchecker so that everything is counted.

6.1.9 How do I insert a fixed amount of horizontal space?

There are various ERT commands to use: `\enspace` (1/2 em), `\thinspace` (1/6 em), `\negthinspace` (-1/6 em), `\quad` (1 em), `\qquad` (2 em), `\hspace{length}`, etc. An “em” is roughly the width of the letter “m” in the current font. The length argument of the `\hspace` command is any valid T_EX length; units can be mm (millimeters), cm (centimeters), in (inches), pt (points = 1/72 inch), em (width of letter “m”), or ex (height of letter “x”). Examples: `\hspace{1in}`, `\hspace{2.5em}`, etc.

6.1.10 How can I make citations show up as [1,2,3,6] or [1-3,6] rather than [1][2][3][6]?

Insert `\usepackage{cite}` into the L^AT_EX preamble. Most L^AT_EX distributions should have this package included. L^YX supports this package, if you insert multiple citations separated by commas into the citation dialog, e. g. [Smalley_JCP,Jarrold_Sci], instead of just one citation after the other: [Smalley_JCP] [Jarrold_Sci].

6.2 Figure related questions

6.2.1 What is the difference between a “figure” and a “figure float”?

This is an example of less-than-ideal terminology. “Figure” is what I would really call a “graphic”; it basically means insert a picture file. “Figure float” is more what one means by a figure in a paper: it includes the graphic, the caption, the figure label, etc. You should almost always insert a figure float first, then put a figure inside that.

Tables work in the same manner. Put a table float in first, then insert the table within that.

6.2.2 How do I get L^YX to put the figure exactly where I want it?

Select Layout▷ Document. In the Float Placement box, type “!htp”. This tells L^AT_EX to try really hard to put the figure here first, then the top of a page, then on a page by itself. This is a global setting: all figure will then obey this rule set.

If you want to control how each figure behaves, right-click in the figure float and you will get a dialog allowing to control the figure behavior.

6.2.3 What does “Too many unprocessed floats” mean?

L^AT_EX can handle only a limited number of floating elements floating at a given time. For example, if Figure 4 can’t be fit in a good location (using the default rules of top of the page, then bottom, then a page of its own) and Figure 5 comes along, they will both continue to float toward the end of the document until a good location can be found. If nothing good turns up, they will just be placed at the end of the document. If there are too many of these, L^AT_EX

overruns a counter and emits the “too many unprocessed floats” error. This is not a bug in \LaTeX , this is simply too many figures with too little text :-)

The easiest way to work around this is to insert a `\clearpage` command somewhere in the document where a pagebreak would be appropriate. While a pagebreak would simply start a new page, `\clearpage` processes all remaining floats, then begins a new page. This may lead to an unsightly stack of figures in the middle of your document; you may need to use several `\clearpages` to make things balance nicely.

6.3 Math related questions

6.3.1 How do I put normal text inside a mathematical equation?

Type “M-m m” while inside the equation to enter “math text mode”.

6.3.2 How do I make a cube root (or higher)?

Type “M-m r” to insert a nifty “root box”. Use the cursor keys to navigate the entry boxes.

7 Questions Related to Running LyX

7.1 How do I convert LyX files to \LaTeX from the command line?

File export was vastly improved in version 1.1.6. Simply say

```
lyx --export latex <yourfile>.lyx
```

and that is all you need to do.

If you have an older version of LyX , you can use the same syntax if you are running X, because it will cause LyX windows to pop up onto your screen. If you have the Xvfb command available, you can resort to a deeper level of subterfuge (under `bash`):

```
(Xvfb :1 -once -terminate &); rm <file>.tex; lyx -display :1 --export latex <file>.lyx
```

Under `csh/tcsh` it is simply

```
Xvfb :1 -once -terminate &; rm <file>.tex; lyx -display :1 --export latex <file>.lyx
```

This should work anywhere, whether or not X is actually running.

7.2 How do I create PDF files from my LyX document?

Read Section 5.3.6 of the *Extended Features* manual.

7.3 Why do the fonts in my document look so bad in acroread ?

The problem and the solution are also discussed in Section 5.3.6 of the *Extended Features* manual.

7.4 Why doesn't my latest and greatest version of Ghostscript render EPS inline figures properly?

[Note: this only applies to versions of LyX older than 1.2.0, since the graphics rendering code has been rewritten in this version]

A couple of users reported that they couldn't get recent Ghostscript versions to display inline figures in LyX. It transpires that this is a Ghostscript bug:

http://sourceforge.net/bugs/?func=detailbug&bug_id=124957&group_id=1897

This bug appears to affect Ghostscript 6.22 and upwards. After applying the above mentioned patch, rendering in Lyx works fine again. GNU Ghostscript 6.53 and above include this fix.

8 Questions Related to LyX on Windows

8.1 Why do the menus and the toolbar flicker ?

You are probably using the XWin32 X server. This is a bug in XWin32: you can work around the problem by disabling the "Use Reserved Colors" option of XWin32, and using a color mode other than PseudoColor.

9 How to get further assistance

9.1 You still haven't answered my question!

Then RTFM, especially the Tutorial. The documentation really is quite good. (Besides, I helped write parts of it :-). If you think your problem may be L^AT_EX related, then look in *L^AT_EX, A Document Preparation System, 2nd Ed.* by Leslie Lamport (1994). There are also numerous example files included with LyX. Try File▷Open▷Examples.

9.2 I want to mail someone about my problem.

Send email to the LyX Users list lyx-users@lists.lyx.org. If LyX is actually crashing or otherwise non-functional, then try the developers' list at lyx-devel@lists.lyx.org.

9.3 What to put in a request for help.

Include your version of LyX and a description of what you are trying to do, along with evidence that you've actually read the docs.

If LyX has crashed, include the version of LyX, the operating system, the version of xforms (if it seems to be a screen drawing problem), and a precise description of the events that lead to the crash. The easier it is for the developers to reproduce your crash, the more likely it will get fixed. If you're brave and like to hack, use gdb to generate a backtrace and include the results with your mail. If you have no clue what I'm talking about, just describe what you did as completely as you can.

10 Administrative information and acknowledgments

10.1 Feedback is invited.

Send comments, suggested additions, world record document claims, etc. to lyx-docs@lists.lyx.org.

10.2 Formats in which this FAQ is available.

The LyX file original is included in the LyX source distribution, converted versions in HTML and ASCII should soon be available at the website. A German version is also available with the distribution.

10.3 Authorship and acknowledgments.

Bernhard Iselborn, David Johnson, and Paul Evans were responsible for the FAQ through version 0.2.2 which covered LyX-0.10.7. The FAQ as of version 0.3.0 was written from scratch and covers LyX-1.0 and higher. Many people contributed pieces to the current version; Mike Ressler of the Doc Team collected them into this file.

10.4 Disclaimer and Copyright.

I don't claim anything in this document is accurate to within a factor of π ; after all, I'm just an astronomer, and we like to set $c = h = k = \pi = 1$. When the answer is wrong, we just redefine the units. This file is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details. In other words, it's not my fault if you lose your dissertation the night before your doctoral defense because you forgot to save it before the power failed while wondering how a fundamental physical constant expressed in units of m s^{-1} could possibly be equal to one expressed as $\text{kg m s}^{-2} \text{K}^{-1}$. This file is Copyright © 2000 by Michael E. Ressler on behalf of the LyX Documentation Team.