

Overview

 What is LyX?

 WYSIWYM philosophy

 Work In Progress

⇒ User-interface improvements

⇒ RTL Languages

⇒ External Inset

⇒ Input and output conversion management

⇒ GUI Independence

⇒ Future Developments

 Resources



What is LyX?

- ✍ WYSIWYM document processor
- ✍ Concentrate on content rather than appearance
- ✍ Not just a GUI front-end for \LaTeX
- ✍ Integrated Development Environment for:
 - ⇒ \LaTeX
 - ⇒ SGML
 - ⇒ and Literate Programming documents.
- ✍ Structured authoring tool
- ✍ Runs on most Unix variants, OS/2 and Windows NT and 9x with an X server and Cygwin tools.



Who develops it?

- ✍ Project started by Matthias Ettrich in 1994
- ✍ 15 **core** developers and 55 major contributors.
 - ⇒ Lars Gullik Bjønnes – Maintainer
 - ⇒ Mostly European.
- ✍ 4 member documentation team.
 - ⇒ Mike Ressler – Maintainer
 - ⇒ Mostly USA.
- ✍ 20 member translation team



Who uses it and what for?

- ✍ Two novels (400+ and 836 pages)
- ✍ LyX documentation (400 pages of documentation and tutorial)
- ✍ TWiG (Writers club on Prince Edward Island)
- ✍ Budding Hollywood and Broadway script writers.
- ✍ Several users in NASA and JPL. Astronomy journal submissions and press kits.
- ✍ Academics – numerous journal and conference paper formats supported.



WYSIWYM Philosophy

- ✍ What you see is what you mean.
- ✍ Separation of structure from formatting.
- ✍ User concentrates on content.
- ✍ \LaTeX concentrates on making it look good.
- ✍ LyX
 - ⇒ encourages proper use of style sheets (\LaTeX document classes).
 - ⇒ discourages random font attribute changes.
 - ⇒ provides tools to simplify and speed user input and navigation.



Shoulders of Giants

Code languages

⇒ LyX in C++

⇒ reLyX in Perl

⇒ Various scripts written in Python (eg. mail-merge)

Typesetting and/or authoring

⇒ L^AT_EX, BibT_EX

 BibT_EX database tools (gbib, tkbibtex, etc.)

⇒ DocBook and LinuxDoc

Other

⇒ ispell, aspell, libpspell, noweb, xpdf, xdvi, etc. etc. etc.



User-Interface Improvements

- ✍ Reconfigurable tool-bar and menu-bar
- ✍ Preferences dialog for easier configuration
- ✍ Depth markers show nesting depth of environments
- ✍ Everything is an inset
 - ⇒ better visual feedback of document object's contents
 - ⇒ can collapse some document areas



Under The Bonnet Changes

- ✍ Cleanup to use modern C++ techniques and STL
- ✍ Rewritten table support
- ✍ Everything is an inset
 - ⇒ removal of special case handling of footnotes, tables and other floating environments
- ✍ Automatic conversion management
 - ⇒ determines conversion paths between file types based on what is available on the system
 - ⇒ User extendable
- ✍ GUI independence of dialogs



RTL Languages

- ✍ First to support Hebrew/Arabic.
- ✍ Recently, other word processors added this support:
 - ⇒ Abiword (the support is in the code, but not compiled by default)
 - ⇒ Kword (the CVS version. To be released with KDE3(?))
 - ⇒ The word processor of OpenOffice (the code was not released yet)
- ✍ The first Hebrew book written in LyX announced Oct 2001[2]. It is an operating systems textbook.



External Inset

 Written in 3 days at LyX Developers Meeting in 2000

⇒ Including full documentation

 Very simple and fairly obvious solution

⇒ doesn't try to display internally

 **Not** a replacement or alternative for KParts etc.



Converters

- ✍ Convert from one format to another
- ✍ Formats are **not** determined by file extension
 - ⇒ allows multiple converter definitions
- ✍ LyX automatically determines conversion paths
- ✍ Multiple conversion paths possible
- ✍ LyX chooses shortest path
- ✍ Longer alternate paths can be made available by user-defined format names
- ✍ Automatic conversion of images to match output format requirements



GUI-Independence

- ✍ XForms, Qt2 and Gnome— ports
- ✍ XForms is reference port
- ✍ All dialogs completed
- ✍ Model-View-Control separation of dialogs halfway completed



Future Developments

- ✍ GUI and system independence
 - ⇒ Palm pilot port is a popular request,
 - ⇒ Curses (TUI),
 - ⇒ Native interface for Windows, OS/2, Mac and BeOS.
- ✍ Better RTL language support.
 - ⇒ Arabic character combining
- ✍ Chinese, Japanese and Korean support.
 - ⇒ Unofficial patch exists.
- ✍ Support more \LaTeX packages and document classes.
- ✍ General XML DTD support and file format.



Resources

-  LyX home page <http://www.lyx.org/>
-  LyX developers web site <http://www.devel.lyx.org/>
-  LyX Development News <http://www.lyx.org/news/>
-  'Official' Unofficial RPMs
<ftp://ftp.sylvan.com/pub/lyx/>
-  LyX developers mailing list
<mailto://lyx-devel@lists.lyx.org>
-  LyX users mailing list
<mailto://lyx-users@lists.lyx.org>



References

[1] Timm Danker,

<http://www.mail-archive.com/lyx-devel@lists.lyx.org/msg09711.html>

[2] <http://ivrix.org.il/mailling-lists/ivrix-discuss/2001/10/0024.html>

