

Liblouis – a universal solution for Braille transcription services

Christian Egli
christian.egli@sbszh.ch

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Background

- Swiss Library for the Blind and Visually Impaired produces accessible media
 - Braille, DTBs, Large Print and more
- Production moves to DTBook XML

Why are we here?

- Current tool set has problems
 - No support for DTBook XML
 - No support Unicode
- A better tool set is needed

Universal?

- Open source
- Easily adapted
- Support for many languages
- Support for DTBook XML format

Open source

- To ensure longevity
- Not dependent on one person or one institution
- Developed collaboratively
- Code is free to study, use, modify and share
- Runs on any platform

Easily adapted

- Configurable outside of code proper
 - Braille translation
 - Braille formatting
- Integrates with production system
 - Command line interface
 - Programming API

Support for many languages

- Support for many languages out of the box
 - German Grade 2
 - ...

Support for DTBook XML format

- Translate and format DTBook XML documents
 - Our production will be centered around it

What Liblouis offers

- Liblouis is Open Source
- Liblouis is easily adapted
- Liblouis supports many languages
- Liblouis supports DTBook XML

What Liblouis offers

- Liblouis is Open Source
 - Liblouis is freely available
 - GNU Lesser Public License (LGPL)
 - runs on any modern platform (Windows, Linux, Mac)
- Liblouis is easily adapted
- Liblouis supports many languages
- Liblouis supports DTBook XML

What Liblouis offers

- Liblouis is Open Source
- Liblouis is easily adapted
 - text based translation tables
 - formatting is defined in semantic mappings
- Liblouis supports many languages
- Liblouis supports DTBook XML

What Liblouis offers

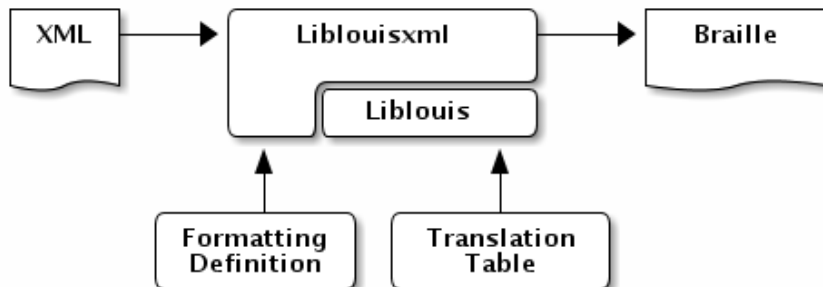
- Liblouis is Open Source
- Liblouis is easily adapted
- Liblouis supports many languages
 - currently over 40 languages
 - German grade 2 will be added soon
- Liblouis supports DTBook XML

What Liblouis offers

- Liblouis is Open Source
- Liblouis is easily adapted
- Liblouis supports many languages
- Liblouis supports DTBook XML
 - Many document formats are supported
 - DTBook XML
 - DocBook
 - Microsoft Word XML
 - etc

Architecture

Liblouis Braille Transcription Services



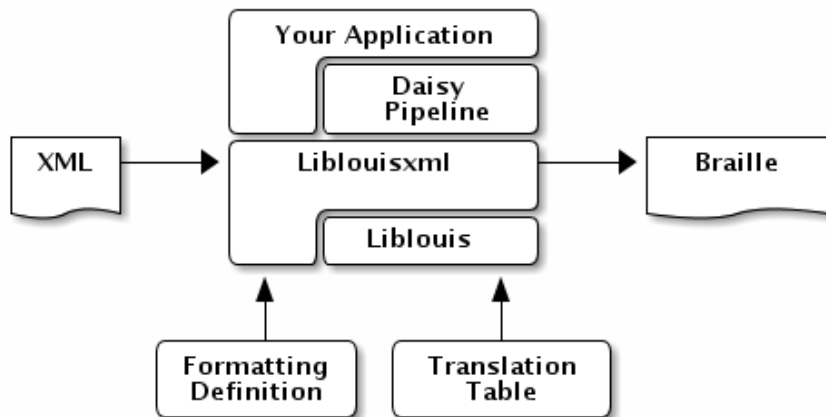
Braille Translation

- Based on translation tables
- Braille translation for literary and computer Braille
- Contracted and uncontracted translation
 - For over 40 languages
 - Rule-based or dictionary-based approach
- Braille mathematics
 - Nemeth
 - UK Math
 - Marburg

Braille Formatting

- XML → Braille
 - Many formats supported out of the box
 - DTBook XML
 - DocBook, XHTML, Microsoft Word XML, etc
- Based on
 - Mappings between XML tag and formatting style
 - Formatting style definitions

Embedding



Liblouis ecosystem

- Probably the most compelling feature
- Developer and user community
- Contributions
 - Feedback
 - Translation tables
 - Computer language bindings
 - GUI applications

Demo Time

- Invoke xml2brl on the command line

What Liblouis can do for you

- Universal solution for Braille transcription services
- Probably meets most of your Braille transcription needs
- Used in production
 - Bookshare.org
 - ViewPlus
 - Soon at the Swiss Library for the Blind and Visually Impaired

Liblouis is not perfect

- Isn't Liblouis perfect already?
- By no means!

Roadmap

- Java bindings
- Better table handling
- Formatting improvements
- Your pet feature?
 - Integration with Daisy Pipeline for example

Join the development

- Get code from <http://code.google.com/p/liblouis/>.
- Join the development
 - Feedback
 - Translation table improvements
 - etc

Questions

Questions?