

# Liblouis – a universal solution for Braille transcription services

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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

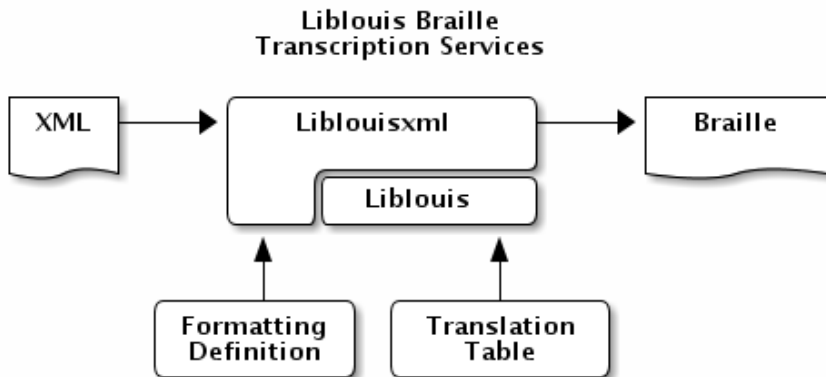
# What Liblouis offers

- 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



# Braille Translation

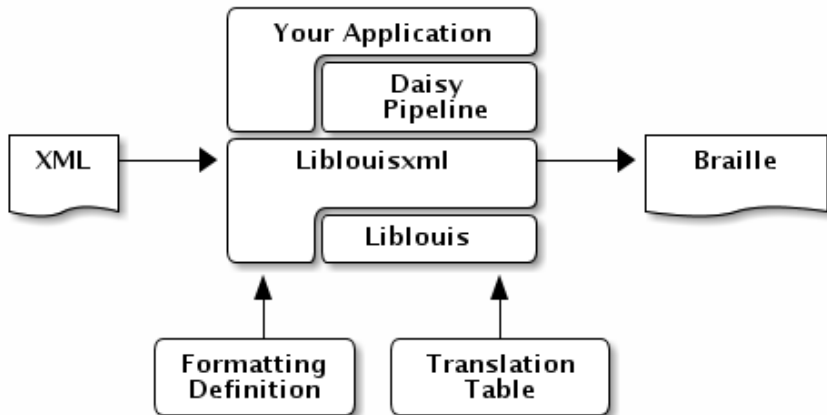
- Based on translation tables
- Braille translation for literary and computer Braille
- Contracted and uncontracted translation
  - For over 40 languages
  - Rule-based or dictionary-based approach
- Braille mathematics
  - Nemeth
  - UK Math
  - Marburg



# 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?