Reality of EPUB: Making it work for your documentation (workshop)

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Introduction

- Scott Prentice, President of Leximation, Inc.

- Specializing in FrameMaker plugin development as well as structured FrameMaker conversions, consulting, and development. FrameMaker user/developer since 1991.

- Developed DITA-FMx, a FrameMaker plugin for efficient DITA authoring and publishing.

- Consulting for custom Help systems, creative/functional web applications, and EPUB solutions.

Workshop tools

- Oxygen XML Editor – installer and trial license provided
- AZARDI ebook reader – installer provided
- Chrome+Readium plugin – not provided
- Sample EPUBs – provided

What is EPUB?

- EPUB is an ebook file format that can be read on almost every device and platform

- Requires a "reader" application or dedicated reader device

- A collection of XHTML, XML, CSS, and media files wrapped in a "zip" archive

- Defines the content, navigation, and formatting of ebook

- "EPUB" is a registered trademark of IDPF

Brief history of EPUB

EPUB specification is maintained by IDPF

Initial EPUB format approved in 2007, superseding Open eBook standard

EPUB 2.0.1 approved 2010

EPUB 3 approved October 2011

EPUB 3.0.1 approved June 2014 (includes FXL and Indexes)

EPUB 3.1 proposed specification available for review

ePUB

Coming soon to EPUB!

EPUB Scriptable Components – IDPF, draft July 2015
Extends scripting and widgets for interactive components.

EPUB+WEB – W3C/IDPF, draft June 2015
Convergence between online and offline content.

EPUB Help – Leximation/AZARDI, prototypes
Deliver context-sensitive, topic-based online Help as an EPUB

EPUB 2 or EPUB 3?

- EPUB 3 is current spec, but full support still weak

- EPUB 3 adds interactivity, multimedia, more (via HTML 5)

- To take full advantage of EPUB 3 you'll have to hand code, no tools provide interactive features (yet)

- If you do include EPUB 3 features, it will limit the readers

- This workshop will cover both

What about Kindle?

- Amazon uses proprietary ebook formats for Kindle readers
- MOBI (like EPUB 2) and KF8 (like EPUB 3)
- Download utility from amazon.com to convert EPUB to Kindle formats
- Mostly "works" but some situations may require extra effort
- This workshop will not cover Kindle conversion issues

Useful EPUB 3 readers

- Desktop
  - AZARDI (Mac, Linux, Windows)
  - Chrome + Readium (Mac, Linux, Windows
- Mobile
  - Apple iBooks (iOS)
  - Gitden Reader (Android, iOS)

Techcomm publishing tools

- Adobe FrameMaker
- Adobe RoboHelp
- MadCap Flare
- MadCap DocToHelp
- DITA-OT + DITA for Publishers
- Others?

EPUBs created from tools

- Tools only make "paged" EPUBs

- No interactivity

- Bloated HTML

- Bad CSS tagging

- Typically "invalid"

- Cleanup is almost always required!

Working with Oxygen

- Other tools can be used, Oxygen makes it easy to fix

- Open EPUB to view/edit content

- Changes are saved back to EPUB

- Validation errors are easy to locate and fix

- Easy to add/edit/delete files

- Perform global (regex-based) search and replace!

EPUB 3 features

- HTML5 and CSS3

- JavaScript (and libraries)

- Audio, video, read-aloud (SMIL)

- MathML and SVG

- Text orientation

- Unicode support

Review EPUB structure

- "ZIP" package

- META-INF/container.xml points to OPF file

- OPF file contains metadata and manifest of all files

- Navigation files (EPUB 3: XHTML; EPUB 2: NCX)

- XHTML content files

- Additional media, styling, scripting files

Possible enhancements

- General cleanup. Open EPUB, show problems and fixes

- Update CSS, show effect on rendering

- Add JS library for formatting or scripting support

- Integrate responsive CSS (media queries) techniques

- Add video and audio controls

- Read-aloud?

EPUB cleanup

- Regardless of the tool, some cleanup will be needed

- Use Oxygen

- Validate and correct errors

- Strip all @style attributes

- Add missing @class attributes so CSS works properly

- Delete unused JavaScript and other resources

Demo

- Review EPUBs created from various tools
- Fix validation errors
- Fix minor usability issues
- Add minor enhancements

Useful JS libraries

highlight.js – code styling, supports 150+ languages

moment.js – date/time support library

Raphaël – vector graphic (SVG) support library

jQuery – powerful scripting support

Integrate JS into EPUB

Add file(s) to folders in EPUB

Add references to new all files in OPF manifest
(be sure to use correct mime type)

Add `properties="scripted"` to the OPF item

Responsive EPUB

Media queries load alternate CSS based on screen properties

Declare in HTML:
```
<link rel="stylesheet"
media="screen and (max-width: 400px)"
href="styles/epub-help-small.css" />
or in CSS:
@media screen and (max-width: 400px)
{ ... }
```

Demo

- Add highlight.js support to existing EPUB

- Explore options for adding charts and vector graphics with Raphaël library

- Test options with adding responsive techniques (media queries)

EPUB Help

- Looking for an alternative to HTML Help?
- "EPUB Help" provides all of the features of Help
- Single-file Help deliverable on all platforms/devices
- Coming soon from AZARDI!
- Vertical scrolling "topics" (instead of paged)
- Context sensitivity

Demo

- Discussion/demo of EPUB Help prototype

- What's coming …

Video and audio

Add video and audio with the standard HTML5 elements

Include the proper mime types in XHTML and OPF

Be aware of the file size

Read-aloud

Demo

Add video and audio to EPUB

Discuss read-aloud technology (SMIL)

Wrap-up

- EPUB is like a "website in a box"!

- Decide what your customers need in their documentation and make it happen

- Don't be limited by the current tools

- Talk to tool vendors about what you want

JS Resources

highlight.js – http://highlightjs.org/

moment.js – http://momentjs.com/

Raphael – http://dmitrybaranovskiy.github.io/raphael/

jQuery – http://jquery.com/

jQueryUI – http://jqueryui.com/

Resources

- EPUB 3.1 specification — www.idpf.org/epub/31/spec
- CSS 3 Module Info — www.css3.info/modules
- Responsive Ebook Design — https://medium.com/@sandersk/responsive-ebook-design-a-primer-8bba01328219
- EPUB Resources — www.epubtest.com/resources.php
- Follow #eprdctn on Twitter
- Scott Prentice <scott AT leximation.com> — www.leximation.com

Feedback

Your opinion is important!

Please tell us what you thought of the lecture. We look forward to your feedback via smartphone or tablet.

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http://mob08.honestly.de

The feedback tool will be available even after the conference!