

Hands on with EPUB



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Scott Prentice, Leximation, Inc.

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.

EPUB basics

- [EPUB is an ebook file format that can be read on almost every device and platform
- [A collection of XHTML, XML, CSS, and media files wrapped up in a “zip” archive
- [Requires a “reader” application or dedicated reader device
- [Best way to learn about the EPUB format is to open your EPUB and review the contents

Popular reader applications

— [iBooks on iPad/iPhone/iPod (EPUB 3)

— [Aldiko on Android devices

— [EPUBReader plugin for Firefox

— [Radium plugin for Chrome (EPUB 3)

— [Adobe Digital Editions on Windows or Mac OS

— [Kindle, Nook, and Kobo desktop and mobile apps

Dedicated reader devices

— [Amazon Kindle

— [Barnes & Noble Nook

— [Kobo eReaders

— [Sony eReaders

— [Also .. Asus, Azbooka, Bookeen, Egriver, enTourage, Fujitsu, HanLin, Hanvon, iRiver, NUUTBook, Onyx, PAGEone, Pixelar, Pocketbook, Sagem, Spring Design, Viewsonic, WISEreader, ...

Authoring/Conversion Tools

- [EPUB 3 authoring and conversion tools:

- Adobe InDesign CS6

- Adobe RoboHelp 10

- BlueGriffon EPUB Edition

- ComponentOne Doc-To-Help 2012

- DocBook to EPUB XSLT

- SyncRO Soft oXygen XML Editor 14

Authoring/Conversion Tools

— [EPUB 2 authoring and conversion tools:

— Apple iWork Pages

— Calibre

— DITA Open Toolkit + DITA for Publishers plugin

— MadCap Flare

— Sigil

— WebWorks ePublisher

Creating an EPUB

- [Create content in an authoring tool then export to EPUB
- [Convert to EPUB from existing content (PDF, HTML, DITA, etc.)
- [Hand-code the EPUB (after all, it's "just HTML")
- [People in techcomm will likely convert from existing content
- [Each tool has its methods for authoring/conversion
- [If possible, use named styles since these will typically map to CSS selectors in the XHTML

EPUB 2 or EPUB 3?

— [IDPF (International Digital Publishing Forum) released EPUB 3 in October 2011; replaces 2.0.1

— [EPUB 3 adds support for HTML 5, SVG, MathML, and more

— [Tool/reader support for EPUB 3 is lacking

— [For now use EPUB 2 (or simple EPUB 3) unless you know that your target device/application supports EPUB 3

Opening an EPUB

— [After creating an EPUB, you'll likely need to open and "fix"

— [Change extension to ".zip" and use archive extraction tool (but it's tricky to put it back together properly)

— [Use an editor that can open EPUBs directly

— oXygen XML Editor

— Sigil

— eCub or Jutoh

— BlueGriffon EPUB Edition

Structure of an EPUB file

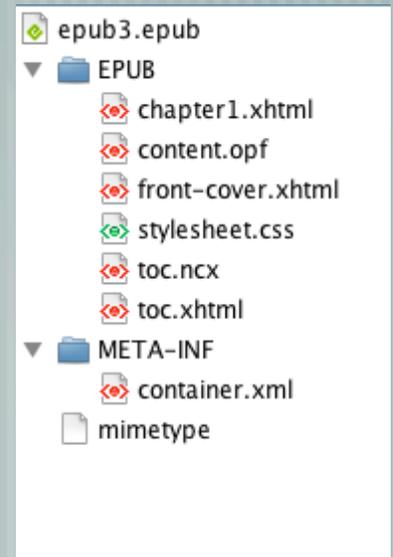
mimetype file (at root) contains "application/epub+zip"

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

OPF file contains metadata, manifest, and spine

OPF references a "TOC" file, XHTML content files, CSS, JS, fonts, and media files

Folder and file names will vary from EPUB to EPUB



EPUB 2 vs. EPUB 3

— [In OPF file package/@version = "2.0" or "3.0"

— [In EPUB 2, NCX file (TOC) is required; for EPUB 3 it is optional (for use by older readers)

— [In EPUB 3, TOC file is in nav tag in ".xhtml" file

— [In EPUB 3, content file names use ".xhtml" extension

— [EPUB 3 uses XHTML 5

TRY IT: Open and review

- [Using oXygen XML Editor, open EPUB 2 and EPUB 3 files and review
- [Note the file names and folder structure
- [File and folder names will vary from EPUB to EPUB
- [Locate files by following references, start from container.xml
- [Note metadata usage in OPF and NCX files
- [Review structure and syntax of OPF, NCX, and “NAV” files

TRY IT: Review content files

— [Locate various types of content inside the EPUB, note references to each file in the OPF file

— [Identify “chapter” HTML files in EPUB, note that each starts on a new “page” in EPUB reader

— [Open HTML (XHTML) files and review coding styles

TRY IT: Edit HTML

— [Make a copy of an EPUB

— [Open the EPUB and open an HTML file

— [Make some edits, then save, review changes in EPUB reader

— [Make more edits but intentionally make invalid, save, and validate .. in oXygen you'll see a nice debugging screen that links to the errors

TRY IT: Use Sigil for editing

— [Open and edit EPUB files

— [Imports TXT or HTML

— [Supports EPUB 2

— [WYSIWYG and code view authoring

— [TOC builder, HTML tidy, EPUB validator

— [Full metadata support

— [Mac/Windows/Linux .. and Free!

DEMO: DITA to EPUB

Use the DITA Open Toolkit to generate an EPUB from DITA XML files

```
$ java -jar lib/dost.jar /i:<ditamap> /transtype:epub
```

Java (Windows, Mac, Unix, ...); currently just EPUB 2

Review the resulting EPUB in a reader application

Open the resulting EPUB file and review the contents

DEMO: FM to EPUB

- [Use the Adobe Technical Communication Suite to generate an EPUB from FrameMaker files
- [Windows only; supports EPUB 2 and EPUB 3
- [Review the resulting EPUB in a reader application
- [Open the resulting EPUB file and review the contents

TRY IT: Packaging the EPUB

— [Once all of the files “look” good, you’ll need to package (zip) and validate the EPUB

— [If you’re using oXygen or Sigil, this will be done for you, otherwise you’ll need to do the packaging

— [mimetype file must be first in the package and be uncompressed, remaining files follow

TRY IT: Packaging the EPUB (2)

— [On Mac or other UNIX systems, use the following commands (run from within EPUB project folder)

```
$ zip -0Xq thegreatstory.epub mimetype  
$ zip -Xr9Dq thegreatstory.epub *
```

— [On Windows systems, use the ePubPack utility
sourceforge.net/projects/epubpack/

TRY IT: Validate your EPUB

— [To ensure the EPUB meets the EPUB specification, use the EpubCheck utility - code.google.com/p/epubcheck/

— [Requires Java JRE 1.5 or later

```
$ java -jar /path/to/epubcheck.jar thegreatstory.epub
```

— [Reports any violations

Resources

— [IDPF EPUB 2 and 3 specifications - www.idpf.org

— [Follow #eprdctn on Twitter

— [Liz Castro - www.pigsgourdsandwikis.com

— [Resources - www.epubtest.com/resources.php

— [Questions?

— Scott Prentice <[scott AT leximation.com](mailto:scott@leximation.com)>

— Leximation, Inc. - www.leximation.com