Barnes & Noble Press ePub Formatting Guide

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I. Introduction

ePub is an open source, industry-standard format for eBooks. NOOK sells digital content that is in the ePub format. Because ePub is reflowable, customers can read files that are formatted in ePub on the NOOK dedicated eReading devices and on Android, iPad, iPhone, iPod, Windows 8, and PC and Mac via NOOK's free NOOK eReading software.

Publishers looking to sell highly formatted eBooks should convert their eBooks to ePub before uploading them via Barnes & Noble Press to ensure optimum formatting.

In this document, we provide background information on the ePub format and guidelines for optimizing your ePub to render well across the NOOK line of eReading products.

II. What is ePub?

As defined by the International Digital Publishing Forum (IDPF),

".epub" is the file extension of an XML format for reflowable digital books and publications. **".epub"** is composed of three open standards, the **Open Publication Structure (OPS)**, **Open Packaging Format (OPF)** and **Open Container Format (OCF)**, produced by the IDPF.

More information on the ePub standard is available at the following websites:

- http://www.idpf.org/epub/20/spec/OPS_2.0.1_draft.htm
- http://idpf.org/epub/20/spec/OCF_2.0.1_draft.doc

Publishers not familiar with the ePub specification should follow the above links to learn more about the file format and container requirements.

III. ePub Requirements

ePubs are essentially "zip" files with a different extension. By renaming the file name of an ePub from "xyz.epub" to "xyz.zip, it can be zipped, unzipped etc. There are three fixed elements to every ePub file:

1. MIMETYPE file
2. META-INF folder
3. OEBPS folder

The MIMETYPE file occurs at the root level; both the META-INF and OEBPS folders occur below that. All other files can be organised as works best for the publisher. Two required files are CONTENT.OPF and TOC.NCX.

ePubs should be validated using EPUBCHECK (the latest version as of this writing is 3.0), available at http://code.google.com/p/epubcheck/. Instructions on how to use it are available here: http://code.google.com/p/epubcheck/wiki/Running.

IV. OPF specifications

The basic OPF file contains metadata statements, a manifest of included files and a list of the "playing" order of the files. While additional information can be supplied in the OPF that controls the behaviour of other eBook readers, this is not a requirement for NOOK.

Metadata - The metadata starts with these three required lines of code. Note the unique-identifier declared in the second statement - this should represent a unique identifier scheme in use in your organisation.

```
<?xml version="1.0" encoding="UTF-8" ?><package version="2.0" unique-identifier="PrimaryID"
xmlns="http://www.idpf.org/2007/opf"><metadata xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:opf="http://www.idpf.org/2007/opf">
```

NOOK requires these statements:

TITLE <dc:title>title</dc:title>

AUTHOR <dc:creator>author name</dc:creator>

PUBLISHER <dc:publisher>publisher name</dc:publisher>

PUB DATE <dc:date>date</dc:date>

ID <dc:identifier id="PrimaryID">identification code</dc:identifier>

LANGUAGE <dc:language>en</dc:language>

Manifest - The manifest identifies every file contained in the epub. If a file is not identified, it will not be accessible. Example of different file statements:

- <item id="pt" href="my_page.xpgt" media-type="application/vnd.adobe-page- template+xml"/>
- <item id="style" href="mystyle.css" media-type="text/css"/>
- <item id="image001" href="image001.jpg" media-type="image/jpeg"/>
- <item id="image002" href="image002.png" media-type="image/png"/>
- <item id="cover" href="cover_page.xhtml" media-type="application/xhtml+xml"/>
- <item id="toc" href="content_page.xhtml" media-type="application/xhtml+xml"/>
- <item id="ncx" href="toc.ncx" media-type="application/x-dtbncx+xml"/>

Note that item ID "toc" refers to the physical contents page while item ID "ncx" refers to the file that controls eBook navigation.

Spine – the spine controls the playing order of the eBook and determines which file precedes/follows another.

Guide – the guide is a list of references defining structural elements of the eBook (TOC, List of Illustrations, Index, Copyright etc). Use of guide elements is optional for NOOK.

V. NCX specifications

The NCX file contains the hierarchical table of contents and is represented by the Navigation Panel in Adobe Digital Editions. The listings in the NCX file are visible under the Table of Contents menu on NOOK. An NCX set to display in multiple levels will appear as:

PART ONE

  Section One

    Chapter 1

    Chapter 2

  Section Two

    Chapter 1

    Chapter 2

VI. Image optimization

The screen sizes for the various models are as follows:

NOOK: 600 x 800 pixels (B&W - eInk)

NOOK Simple Touch/Glow: 600 x 800 pixels (B&W - eInk)

NOOK Color: 600 x 1024 pixels (Color – RGB)

NOOK Tablet: 600 x 1024 pixels (Color – RGB)

NOOK HD: 900 x 1440 pixels (Color – RGB)

NOOK HD+: 1280 x 1920 pixels (Color – RGB)

Images should be optimized for web delivery and can either be .png or .jpg. The choice of format is optional and should be based on a compromise of image quality and file size. Typically, .jpg supports a maximum of 16.7 million colors while .png supports 24-bit color. We recommend that cover images should be at least 1400 pixels on each side.

VII. Files

Content should be organised into separate HTML or XHTML files. For example, Title_page.xhtml, Contents.xhtml, Copyright.xhtml, Dedication.xhtml, Chapter_One.xhtml, Chapter_Two.xhtml etc.

Each file should be listed in the <manifest> of the OPF file. Files contained in the ePub but not listed in the <manifest> and files listed in the <manifest> but not contained in the ePub will fail epubcheck and may interfere with NOOK performance.

VIII. CSS/Fonts

When defining styles in the CSS, margins should be set as "pixels", not "ems" or "% of ems". This will optimize the viewing area regardless of selected font or type size.

The page margins should be set at 30 pixels on the top and sides, with 20 pixels on the bottom. Embedded fonts are allowed: the publisher should own the right to include licensed fonts.

IX. Roman and Special Characters

NOOK supports the WGL character set. The set can be references here: http://www.ascendercorp.com/pdf/WGL_Character_Set.pdf.

X. General eBook Conventions
- Covers are not mandatory in the eBook, but a Title Page is.
- The page order does not need to follow the print book.
- Blank pages should be avoided.
- It is helpful to have a Contents Page in the eBook, even if there is not one present in the print version. The eBook Contents Page is linked to the individual chapters and helps with eBook navigation.
- Ideally, footnotes should be linked.

- A linked Index is not necessary, but there is usually a disclaimer indicating that the page references are from the print version.
- The Copyright page should show the eBook ISBN, not the print ISBN, if available.
- HTML tabular layout should only be used for tables and not page formatting.
- The text in tables rendered as images cannot be searched.