
iBookstore Asset Guide 4.7 Rev.3



2011-06-16



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Overview

This document provides delivery information for all accepted media and files for the iBookstore. It also includes best practices to use when preparing EPUBs. The EPUB chapter provides general information applicable to all EPUBs. The Multimedia chapter adds additional asset formats specific to multimedia and explains how to embed multimedia files in an EPUB. The Fixed Layout chapter lists best practices pertaining to books that have a fixed layout (for example, picture books, cookbooks, art books, and coffee table books).

Changes Made in this Release

Date/Version	Changes Made
June 16, 2011 - Version 4.7 Revision 3	Removed documentation on features not supported in iBooks 1.3.

What's New in the iBookstore Asset Guide 4.7 Revision 3?

Corrections

Previous versions of the iBookstore Asset Guide incorrectly described features of iBooks 1.3.

Standard EPUBs Asset Specs and Delivery

Overview

This chapter covers preparing standard EPUBs and specifies the requirements for cover art and embedded images. Sample previews, multimedia EPUBs and fixed-layout EPUBs are covered in separate chapters.

For specific content restrictions and concerns, please see Chapter 5: “EPUB and Metadata Style Requirements” in the *Publisher User Guide*.

EPUB Validation

There are a few issues commonly encountered with EPUBs that prevent them from importing into the iBookstore system. Review all EPUBs carefully to ensure that the following are addressed prior to delivery:

- All EPUBs must pass Transporter or iTunes Producer validation.
- All characters in the URLs must be valid with non-alphanumeric characters properly encoded (e.g., space should be encoded as '%20'). This problem most often surfaces in URLs in the NCX files and is due to spaces included in filenames.
- All files included in EPUBs must be listed in the EPUB manifest (OPF file). EPUBs containing unmanifested files will fail import, as these files are by definition not intentionally included.
- Only UTF-8 and UTF-16 encodings are allowed in EPUBs. Any EPUBs that are improperly encoded will fail import, so it is important to use the correct character encodings.
- The maximum EPUB size is constrained by the ZIP standard, and is currently 2 GB.

Recommendations for Creating EPUB Files

Keep the following points in mind when creating an EPUB file:

Book Cover

- The background color on HTML cover pages should either be white or not be defined. Specifying another color results in uneven, dark borders around the cover image on the cover page.

Book Content

- All book elements (for example, the cover, table of contents, first chapter, index, and so on) must be identified in the `<guide>` block. The first chapter of the main body of text should be tagged with the type of "text", with all other `<guide>` elements tagged with the appropriate type ("toc", "title-page", "epilogue", "preface", and so on). Use all of the reference types from the OPF spec (http://www.openepub.org/2007/opf/OPF_2.0_final_spec.html#Section2.6) that apply. Within the `<guide>` block, there can be only one `<reference>` element of each type; for example, there cannot be multiple `<reference>` elements of type "text":

```
<guide>
  <reference type="cover" ... />
  <reference type="toc" ... />
  <reference type="text" ... />
  <reference type="epilogue" ... />
</guide>
```

- When a customer first opens a book on the iPad or iPhone, it will display the first spine item for which there exists a `<reference>` element in the `<guide>` with any of the following types:
 - ❑ text
 - ❑ acknowledgements
 - ❑ dedication
 - ❑ epigraph
 - ❑ foreword
 - ❑ preface
 - ❑ other.intro
- To designate a start page with higher precedence over the types listed above, use the `<reference>` element of type "other.reader-start-page".

Navigating Book Content

In the OPF .opf file, the `<spine>` element is used to indicate the linear reading order of the content. When the person reading the book uses "next page" navigation, the pages are displayed based on the spine order. If a spine item is auxiliary to the main flow of the book (for example, an answer key in a textbook), you can use the optional `linear` attribute set to `no` to skip over the item so as not to disrupt the reading flow. If you do not specify `linear="no"`, `linear="yes"` is the default. The `<spine>` must have at least one item with the attribute `linear="yes"`. Note that the spine item for back cover art cannot have the attribute `linear="no"`.

Note: Make sure the auxiliary content is reachable in some other way if you use `linear="no"`, for example, as a link. If the person reading the book taps on the link, the content opens in its own window. Apple Developer Publications has released several free books that use this method for displaying tables. A good example is [iOS Technology Overview \(iOS Technology Overview Apple Developer Publications Category: Programming Released: Nov 15, 2010\)](#). It has a section at the front of the book that lists the Figures and Tables. Table 6-1 is a good example.

```
<spine>
  <itemref idref="cover"/>
  <itemref idref="titlepage"/>
  <itemref idref="copyright"/>
  <itemref idref="toc"/>
  <itemref idref="chapter01"/>
  <itemref idref="answerkey" linear="no"/>
  <itemref idref="chapter02"/>
</spine>
```

Adobe Page Template

- The Adobe Page Template XPGT is currently not supported. Use CSS3 instead.

Accessibility

- To ensure a good experience for accessibility users, include a valid `alt` property in image tags.

Line Breaking

To prevent text from being clipped by the bounds of the content area, insert soft hyphens into long words and especially into linked text and headings. Soft hyphens are described in detail here:

<http://www.w3.org/TR/html401/struct/text.html>

Page Breaks

To indicate that a page break should come before or after an element, set up a style in CSS using the `page-break-before` or `page-break-after` properties. Accepted values for these properties include:

- `auto`: Insert a page break before or after the element as necessary
- `always`: Insert a page break before or after the element

Below is an example of a CSS style to add a page break before all text styled as a heading 1:

```
h1
{
  page-break-before:always;
}
```

Page Mapping

To provide a reading experience similar to printed books, the person reading a book on the iPad or iPhone should be able to refer to and navigate to a particular page. This is especially useful in a classroom setting when the teacher instructs the students to go to a particular page in a textbook. An NCX (Navigation Control file for XML) file lets the reader jump directly to any of the major structural elements of the document (for example, chapter or section) or to a particular page. Although the iPad and iPhone do not currently support `pageList`, Apple recommends supplying it with initial delivery to avoid having to redeliver the book when `pageList` is supported in the future.

To provide navigation to a particular page, use the NCX defined `pageList`. Below is an example:

```
<pageList>
  <pageTarget id="p1" type="normal" value="1">
    <navLabel><text>1</text></navLabel>
    <content src="content.html#p1"/>
  </pageTarget>
  <pageTarget id="p2" type="normal" value="2">
    <navLabel><text>2</text></navLabel>
    <content src="content.html#p2"/>
  </pageTarget>
</pageList>
```

Further documentation on the `pageList` can be found here: <http://www.daisy.org/epub/issues/clarify-ncx-reading-system-requirements>

Book Cover Art

- TIFF with “.tif” extension (32-bit uncompressed), JPEG with “.jpg” extension (quality unconstrained), or PNG with “.png” extension.
- RGB (screen standard).
- 600 pixels minimum along the larger axis. For an average trade paperback, this could be 400x600 minimum size, as the books are generally taller than they are wide.
- Covers may not reference pricing, the physical edition, or include any other wording that may not necessarily be true for the digital edition.

Important: CMYK (print standard) images will **not** be accepted.

Embedded Images

Because there is limited screen real estate, images inside a standard book (that is, not fixed-layout) are automatically scaled. For this to correctly work, images should be at the correct intrinsic dimensions when created instead of hard coding dimensions in the image tag itself.

Keep the following in mind when preparing images:

- TIFF with “.tif” extension (32-bit uncompressed), JPEG with “.jpg” extension (quality unconstrained), or PNG with “.png” extension.
- RGB (screen standard).
- Images that have any unused or transparent areas should be PNG format with transparency.
- To ensure proper viewing of images in content, use the HTML `img` tag instead of wrapping images in `svg:img`.
- The maximum recommended size is 2 million pixels per image. Larger images may not appear as expected in the iBooks app.
- The maximum recommended size is about 10 MB of un-encoded image data per chapter.
- Embedding text in images creates issues that cause a large number of customer complaints: customers can't use the dictionary or search the text, and in addition, the book becomes not accessible for persons with disabilities. Therefore, books with images that contain embedded text will be rejected from sale in the iBookstore.

Fonts

EPUBs may use either system fonts or embedded fonts. System fonts require correct specification in the EPUB CSS. (You can also use the `com.apple.ibooks.display-options.xml` file, which must be located in the META-INF folder, to specify the fonts.) You can also use the display options property to allow users to return to the book's default font settings. See “[Embedding Fonts](#)” (page 12) for more information.

- To properly allow the user to change the body font of content in standard EPUBs, it is imperative that explicit font-family CSS property be used sparingly. It is recommended that explicit font families only be used to achieve an intended effect, such as conveying that a note is handwritten.
- While it can be tempting for content to use fixed font sizes, the result can be less than readable since the user has control over relative font sizes. It is recommended that fixed font sizes *not* be used.
- Fonts should be specified using CSS and not locally on each P, SPAN, DIV, and so on.
- Set primary font and line heights on the body tag.
- Take into account that users will have control over font, size, and justification in standard EPUBs – test your book to make sure it works in most, if not all, cases.
- Check the font hinting and metrics on embedded fonts to avoid layout problems. Be sure to test them to avoid layout issues and cropped text.
- OpenType, TrueType, and SVG embedded fonts are supported.
- SVG text should be reserved for use of irregular text paths.
- Embedded fonts must be declared in the OPF and CSS.
- Font licensing should be verified before embedding fonts.

Embedding Fonts

Embedded fonts must both be included in the EPUB manifest and specified in the `com.apple.ibooks.display-options.xml` located in the META-INF folder. In standard EPUBs when the display options are specified, the user can change the displayed font and can return to the publisher-specified fonts in the iBooks font menu.

If you intend to provide embedded fonts in a reflowable book or a fixed-layout book, use the Apple `<display_options>` with "specified-fonts" set to `true`. Below is a sample `com.apple.ibooks.display-options.xml` file for an EPUB that contains embedded fonts. In standard EPUBs, if the "specified-fonts" property is set to `true`, then the user may choose to select a new font when reading the book; however, they will always have the option in the iBooks interface to return to the EPUB's original fonts.

```
<?xml version="1.0" encoding="UTF-8"?>
<display_options>
  <platform name="*">
    <option name="specified-fonts">true</option>
  </platform>
</display_options>
```

```
<display_options>
```

Display Options (*required if EPUB contains embedded fonts*)

Begins the display options block.

```
<platform name="*">
```

Platform (*required*)

Identifies the platform(s) to which the specified display options apply.

The following values are supported for the `name` attribute (note that the values must be all lowercase letters):

- "*" applies to all platforms
- "iphone" applies only to the iPhone and includes iPod Touch
- "ipad" applies only to the iPad

```
<option name="specified-fonts">true</option>
```

Option (*required if EPUB has embedded fonts*)

Describes the particular display option to apply to the specified platform.

To indicate the EPUB uses embedded fonts, use the "specified-fonts" option and set the value to `true`.

"specified-fonts" indicates that the EPUB contains specific, custom fonts that have been used intentionally for effect (for example, a handwritten font to convey a handwritten note, or a special font used as the drop cap (initial letter of first word of a chapter)). Allowed values: `true` or `false`. If not specified, `false` is the default and standard, user-specified fonts will be used and the special fonts will not appear in the EPUB. This option is required to support embedded fonts.

```
</platform>  
</display_options>
```


Multimedia EPUBs

Overview

This chapter describes the asset requirements for multimedia content that can be embedded within the .epub file, including videos, audio, images, and PDFs. Video content, if used, requires poster art.

Important: When sending EPUBs with embedded multimedia content, keep in mind that the maximum file size for the .zip file is 2GB. For usability's sake, the maximum recommended EPUB size is 500 MB. Larger files take longer to download and may become unwieldy on older devices.

Multimedia Asset Delivery Requirements

Final encodes must be produced in the following formats.

Embedded Videos

Encode videos using Compressor 3.5.2 or later (an application included in Final Cut Studio 3):

1. Select the H.264 for iPod video and iPhone 640X480 setting found in the Apple Devices directory of the Compressor settings list.
2. In the settings inspector on the Encoder pane, select iPod/iPhone (VGA) for native 4X3 content or iPod/iPhone (Anamorphic) for 16X9 recorded in a full 4X3 raster (referred to as “anamorphic”).
3. When using the anamorphic encoder instructions, select the gear across from the Aspect Ratio scroll and select 16:9 (640 x 480). This creates a Pixel Aspect value that appears in the Geometry pane.
4. Use the Geometry pane to enter crop values to remove any black borders or inactive pixels.
5. Click the Preview button on the Compressor Batch window to verify the accuracy of the crop values and also to access the source and setting buttons to test the results of the aspect ratio setting.

Note: Video files must use H.264 video codec and end with MP4 or M4V file extension.

Embedded Video Poster Art

Videos embedded in an EPUB must include a poster image placeholder that meets the following requirements:

- Approximately 150px tall by 300px wide
- 300KB recommended maximum file size
- Must be same aspect ratio as video source

Embedded Audio Source Profile

- Stereo
- AAC/MP4
- 256 kbps
- Encoded using iTunes

Note: Audio files must use AAC audio codec and end with M4A file extension.

Multimedia Source File Recommendations

HD Source

HD videos embedded in an EPUB must include poster art and meet the following requirements.

- Apple ProRes 422 (HQ)
- ITU-R BT.709 color space, file tagged correctly as 709
- VBR expected at ~220 Mbps
- 1920 x 1080 square pixel aspect ratio material
- Native frame rate of original source:
 - 23.98 progressive frames for content originally authored at 24fps and inverse-telecined
 - 24 progressive frames for content originally authored for at film frame rate in a tapeless workflow
 - 25 progressive frames for content originally authored for PAL delivery
 - 29.97 either interlaced or progressive content originally authored for NTSC delivery
 - Telecined 23.98 content containing a 3:2 pulldown will not be accepted
 - HD with source shot at 24 but authored at 29.97 will not be accepted
- All source must contain correct field information as verified by Compressor or Dumpster
- Content may be delivered matted: letterbox, pillarbox, or windowbox.

- Stereo audio tracks, uncompressed linear PCM, channels properly mapped as LT and RT or L and R

Important: All videos must begin and end with at least one black frame.

SD Source

SD videos embedded in an EPUB must include poster art and meet the following requirements.

- Apple ProRes 422 (HQ)
- VBR expected at 40-60 Mbps
- 720 x 480 and 853 x 480 encoded pixels; for display at either 640 x 360 for 16:9 content or 640 x 480 for 4:3 content
- All encoded content must include pixel aspect ratio (pasp) that defines content as either 4:3 or 16:9.
- Native frame rate of original source:
 - ❑ 23.98 progressive frames for content originally authored at 24fps and inverse-telecined
 - ❑ 24 progressive frames for content originally authored for at film frame rate in a tapeless workflow
 - ❑ 25 progressive frames for content originally authored for PAL delivery
 - ❑ 29.97 either interlaced or progressive content originally authored for NTSC delivery
 - ❑ Telecined 23.98 content containing a 3:2 pulldown will not be accepted
 - ❑ HD with source shot at 24 but authored at 29.97 will not be accepted
- All source must contain correct field information as verified by Compressor or Dumpster
- Content may be delivered matted: letterbox, pillarbox, or windowbox.
- Stereo audio tracks, uncompressed linear PCM, channels properly mapped as LT and RT or L and R

EPUB Files with Embedded Multimedia Content

You can embed audio, videos, images, PDFs, and links inside an EPUB to enhance a customer's reading experience. All multimedia elements are directly embedded in the .epub file via standard XHTML and HTML5 tags.

When sending EPUBs with embedded multimedia content, keep the following in mind:

- The maximum file size for the .zip file is 2GB. Keep in mind that the larger the file is, the longer it will take for a consumer to download your book.
- Keep multimedia content to a minimum to avoid long download times.
- It may take longer for your multimedia EPUB to appear on the iBookstore because the files need to be checked by Apple for quality control purposes.
- Note that audio, videos, and PDFs do not have DRM applied in the final EPUB, regardless of contract or the metadata; however, DRM can be applied to the rest of the EPUB content.

- It is not recommended to include alternate version videos (for example, Flash or MPEG-2), as this practice dramatically increases the file size and increases customer complaints.

Embedding Videos or Audio

For optimal user experience, audio and video content should appear on its own line in the EPUB and be centered on the page using `text-align:center` defined in the CSS. Dimensions of the audio scrubber and video pane are hard coded, eliminating styling challenges inherent with multiple platform and orientation support. The standard video pane dimensions are a 1:2 ratio and display at 300px wide by 150px tall on the iPad. If poster frames and videos are not sized to these proportions, the remaining space within the video pane will be black. To avoid letterboxing on videos that do not fit the standard, you may specify width and height in the `<video>` tag. If the size specified is larger than the viewport (common to the iPhone), iBooks will scale the videos to fit the book page.

Note: For books with embedded videos, iBookstore recommends that you include all videos in the table of contents.

Refer to the sample EPUB file (`ibookstore_sample_v1_3.epub`) that is included in the download of the *Publisher User Guide* for examples. Embed videos or audio using standard HTML5 tags:

```
<video src="myvideo.m4v" controls="controls" poster="posterimage.jpg"
width="300px" height="200px"></video>
```

```
<audio src="myaudio.m4a" controls="controls"></audio>
```

Note that the video tag must include the required poster image. The customer sees the poster image in the text and clicks the image to start the video. The controls portion of the tag provides play, pause, stop, and other controls.

The following two examples show how to embed audio and video content in the EPUB, followed by a screenshot of how the audio and video would appear on the device:

Audio

<h3>Below is an embedded audio file.</h3>

<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.</p>

```
<div class="videoContainer">
  <audio src="audio/loop.m4a" controls="controls"></audio>
</div>
```

<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.</p>

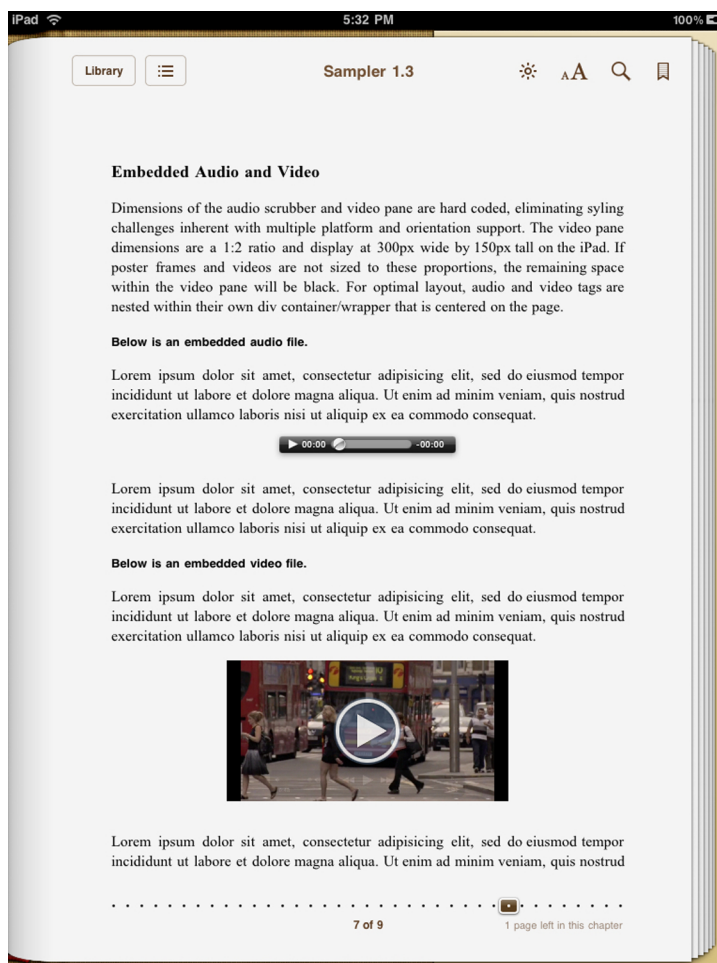
Video

<h3>Below is an embedded video file.</h3>

<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.</p>

```
<div class="videoContainer">
  <video src="video/H264-640x480.m4v" controls="controls"
poster="images/posterframe.png" width="300px" height="200px"></video>
</div>
```

<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.</p>



Embedding PDFs

PDFs are embedded using a standard HREF tag that links an image to the PDF. When the image is tapped, it opens the PDF in a separate view that has zoom controls.

Note: When including PDFs, keep in mind the maximum overall book size of 2GB. Larger PDFs may also cause poor performance on some devices.

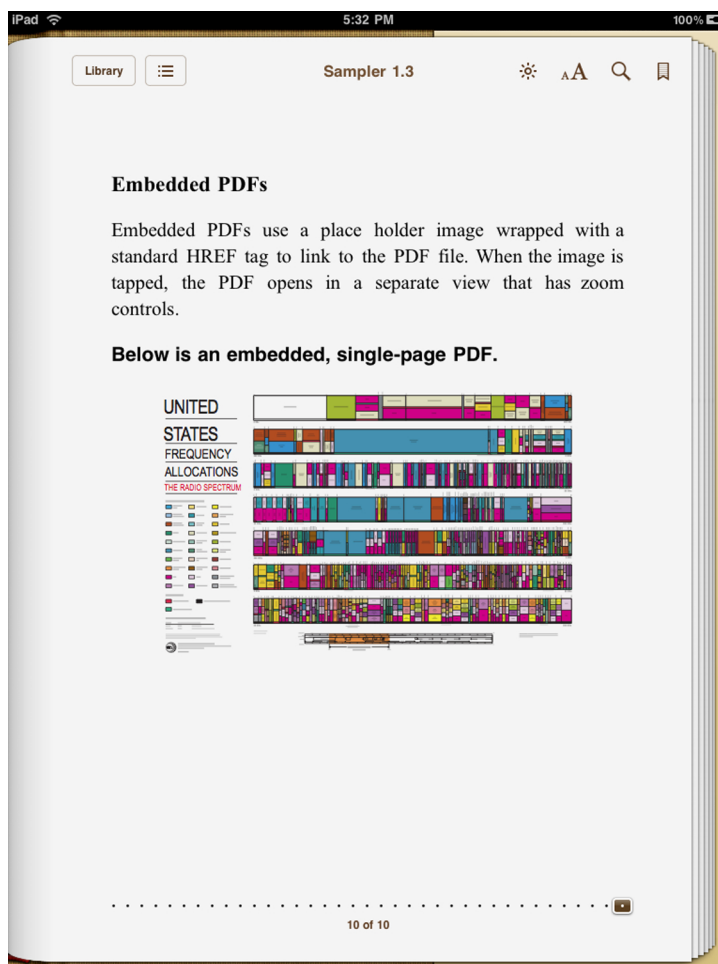
The tag references the PDF file and the accompanying image:

```
<a href="pdf/mypdffile.pdf">  </a>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod  
tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam,  
quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.
```

```
Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore  
eu fugiat nulla pariatur.</p>
```

```
<a href="pdf/sample.pdf">  </a>
```



Embedding Links

Since the EPUB format is based on HTML, links may be used to augment and enhance book content. Links may be within a document, as in the case of an index or endnotes, or may link to the web or other external resources such as an author or publisher website.

The iBookstore also has a very simple linking architecture that enables you to link directly to books within the store. This could be used for marketing from your own website or online advertisements, or it could be used within an EPUB to direct a customer to other related titles at the end of a book. For more information about linking to the store, see the section “Linking to the iBookstore” in the *Publisher User Guide*.

Example book link:

```
<a href="http://itunes.apple.com/gb/book/isbn9780748122721">The Short Second Life  
of Bree Tanner</a>
```

Fixed Layout EPUBs

EPUBs With a Fixed Layout

Unlike “standard” EPUBs that contain a single block of flowable text and images, fixed-layout EPUBs maintain the visual appeal of books with fixed layouts, such as children's picture books, cookbooks, and art books. Fixed-layout EPUBs use CSS positioning to define precise book layouts. This chapter provides guidelines to follow when creating a fixed-layout EPUB. Not following these guidelines could adversely affect the way book is displayed.

Note: Fixed layout is a global definition that affects an entire book. Fixed layout cannot be used on a per-page basis.

Setting Up the Document

Keep the following in mind when creating a fixed-layout EPUB:

- Each page must be a separate XHTML document. A two-page spread consists of two XHTML documents.
- A book's first page must begin on the right-side page of the first two-page spread. Generally, this first page is the cover page. When laying out spreads, remember that even-numbered pages will be on the left-side and odd-numbered pages will be on the right. Subsequent spreads are displayed across pages 2 and 3, 4 and 5, 6 and 7, and so on.
- A fixed-layout EPUB must have the height and width of the book defined in a `<meta>` tag in the head of each XHTML document. For example, `<meta name="viewport" content="width=600, height=1000" />`. iBooks uses these dimensions to determine the aspect ratio of the book. These dimensions should be consistent throughout the book and should match the dimensions of the `<body>` tag.

Using Fonts in Fixed-Layout EPUBs

In addition to the font recommendations in “Page Breaks” (page 9), the following apply to working with fonts in fixed-layout EPUBs:

- Use pixels instead of ems for the font-size.
- Text placement should be done in pixels.

Using Images in Fixed-Layout EPUBs

In addition to the image recommendations in [“Embedded Images”](#) (page 10), the following apply to working with images in fixed-layout EPUBs:

- All images should be prepared in digital format and should not contain any text. All text must be created using HTML.
- Images may be in PNG or JPEG format. To reduce file size, use JPEG for any images that do not require transparency. We recommend using a quality of 85 for JPEGs.
- To maintain image clarity when zooming, we recommend providing images that are at least twice their intended display size up to a 2 million pixel limit. Scaling is not recommended. A full-bleed image should be no smaller than 738 x 985 pixels (the size of a single page in iBooks on the iPad).
- Images must be coded inline in the XHTML. The CSS should contain the styling for an image, but it should not contain the URL of the image.
- Detailed `<alt>` tags for all images should be provided for accessibility.
- If an image overlaps two pages, you can use relative positioning in the CSS to define the image position. However, for the highest quality user experience, it is recommended to slice the image in two. This is not required, but realize that the overall image will have the equivalent of 1 million pixels per page (due to the 2 million pixel per image limit).

Layout

- Because iBooks scales the book to fit within the viewport, both landscape-dominant and portrait-dominant books will maintain their intended layout in either orientation of the device, even after an orientation change.
- Readers can choose to read the book at the zoom-level that is most comfortable for them.
- Publishers can lock the orientation of a fixed-layout EPUB to prevent readers from viewing it in a particular orientation. See [“Configuring Display Options”](#) (page 25) below.

Text

“Wavy” and other strongly-formatted text can be created using SVG text paths. We recommend that SVG should be used sparingly.

Table of Contents

Fixed layout books all include a thumbnail table of contents allowing for easy visual navigation. A traditional list table of contents is also created using the `toc.ncx` file (required for all EPUBs). The list table of contents is very helpful with large books with distinct chapters or sections such as cookbooks. However, the list table of contents is not very helpful with a short picture book and may be suppressed for those books. To suppress the list table of contents, include only one navpoint in the `toc.ncx` navmap—the thumbnail table of contents will still be available.

Configuring Display Options

You can configure how pages of a book are displayed by using the display options in the `com.apple.ibooks.display-options.xml` file, found inside the META-INF folder. If your EPUB has a fixed layout, you must indicate that it has a fixed layout in the `com.apple.ibooks.display-options.xml` file. You can also set display options for a specific platform, for example, when a book is opened on an iPhone, you can set it so the book always opens in Landscape mode. The following lists the supported display options (which are annotated in detail below the example):

- Specific platforms: "iphone", "ipad", or "*" for all platforms
- "fixed-layout" (useful for picture books, cookbooks, art books)
- "open-to-spread" (useful for picture books, cookbooks, art books)
- "orientation-lock"

Picture Book Example

Below is a sample `com.apple.ibooks.display-options.xml` file. In this example, the EPUB is a picture book.

```
<?xml version="1.0" encoding="UTF-8"?>
<display_options>
  <platform name="*">
    <option name="fixed-layout">true</option>
    <option name="open-to-spread">true</option>
  </platform>
  <platform name="iphone">
    <option name="orientation-lock">landscape-only</option>
  </platform>
</display_options>
```

```
<display_options>
```

Display Options (*required if EPUB has a fixed layout; otherwise optional*)

Begins the display options block.

<code><platform name="*"></code>
<p>Platform (<i>required</i>)</p> <p>Identifies the platform(s) to which the specified display options apply.</p> <p>The following values are supported for the <code>name</code> attribute (note that the values must be all lowercase letters):</p> <ul style="list-style-type: none"> "*" applies to all platforms "iphone" applies only to the iPhone and includes iPod Touch "ipad" applies only to the iPad
<pre> <option name="fixed-layout">true</option> <option name="open-to-spread">true</option> </pre>
<p>Option (<i>required if EPUB has a fixed layout; otherwise optional</i>)</p> <p>Describes the particular display option to apply to the specified platform.</p> <p>Currently, the following options are supported (note that the option names and values must be all lowercase letters):</p> <ul style="list-style-type: none"> "fixed-layout" indicates that the EPUB has a particular layout that you want to preserve, such as a picture book. This option is used to determine how the preview is cut (see the note below). Allowed values: <code>true</code> or <code>false</code>. If not specified, <code>false</code> is the default. "open-to-spread" indicates that the EPUB should open to a two-page spread. Allowed values: <code>true</code> or <code>false</code>. If not specified, <code>false</code> is the default. "orientation-lock" indicates the orientation to use when the EPUB is opened. Allowed values: <code>landscape-only</code>, <code>portrait-only</code>, or <code>none</code>. If not specified, <code>none</code> is the default and the orientation will not be locked. <p>Note: If your EPUB is a picture book or other fixed-layout book, you must indicate "fixed-layout". The option determines how the preview is cut. Without this option, the preview is cut as if the content contained text and is based on word count. With this option, the preview is cut based on a percentage of the number of spine items rather than word count. Also, each page of the picture book should be a single HTML page. See "Previews for Fixed-Layout Books" (page 27) for more information.</p>
<pre> </platform> </display_options> </pre>

Book Previews

About Previews

iBookstore automatically creates previews for all books. What the preview is made up of depends on the type of book.

If you do not want iBookstore to cut the preview automatically, you can create a separate, custom .epub file and deliver it for use as the preview in the iBookstore. Note that not all tools support this option. If you contract with a third party to manage your content delivery, they should be able to do this for you. Contact your delivery company directly for more details.

Previews for Standard Books

If a book is predominantly text, the preview is based on a percentage of the number of words (the percentage used is specified in your contract). Where the preview begins can vary depending on how the EPUB has been structured. The words on which the percentage is calculated are counted from the very beginning of the book. Then, the preview is cut either from the first spine item, or the percentage of the words, whichever is greater. For example, if the first spine item (as determined by text elements in the `<guide>` block of the .opf) contains only 2% of the total word count and the percentage specified in the contract is 5%, then the remaining 3% is taken from the next spine item. Any images, movies, or audio included in that percentage will be included in the preview.

Previews for Fixed-Layout Books

If your EPUB is a picture book or other fixed-layout book, you must indicate "fixed-layout" (in the `<display_options>` block in a `com.apple.ibooks.display-options.xml` file. (See ["Configuring Display Options"](#) (page 25) for instructions.) The "fixed-layout" option determines how the preview is cut. Without this option, the preview is cut as if the content contained text (as described above). With this option, the preview is cut based on a percentage of the number of pages rather than word count. iBookstore determines the first page of the book (each page of the picture book should be a single HTML page) and then cuts the preview from a percentage of total page count. The preview sampler will look to the `<guide>` block of the .opf to determine the start of the content of the book. For optimal preview samples, include `<reference type="text" ... />` to indicate the beginning of the book's content.

Revision History

Previous Spec Revisions

The following table lists the previously-released specifications and the revisions:

Date/Version	Summary
June 1, 2011 - Version 4.7 Revision 2	Clarified multimedia assets delivery requirements.
March 1, 2011 - Version 4.7	Added a link to an example use of <code>linear="no"</code> . Added color space requirement for HD source.
February 9, 2011 - Version 4.6	Removed size recommendations for full-bleed images. Images should not contain embedded text.
December 21, 2010 - Version 4.5 Revision 1	Added support for fixed-layout books (such as picture books, cookbooks, and art books). Added support for embedded fonts and for <code>linear="no"</code> . Page breaks are now supported for standard (non fixed-layout) EPUBs.
December 1, 2010 - Version 4.5	First release of the standalone asset specification for books. This guide contains only the video and audio source formats for books; it does not list formats for music, film, and TV. An additional chapter describes best practices in preparing book content for the iBookstore.

Changes in the iBookstore Asset Guide 4.7 Revision 2

Multimedia Delivery Requirements

Videos embedded in a multimedia EPUB must use H.264 video codec and end with MP4 or M4V file extension. Audio embedded in a multimedia EPUB must use AAC audio codec and end with M4A file extension.

Changes in the iBookstore Asset Guide 4.7

<spine> Element

The <spine> must have at least one item with the attribute `linear="yes"`, which is the default. Any spine item without the `linear` attribute defaults to `linear="yes"`. Any spine item with the `linear="no"` attribute will open in its own window. See ["Navigating Book Content"](#) (page 8) for more information and a link to an example.

Previews

Removed the sentence “If you deliver via iTunes Producer, creating custom previews is not an option at this time.” You can now deliver previews using iTunes Producer.

Assets

HD video source must be tagged as 709 color space.

Change in iBookstore Asset Guide 4.6

Images: Clarifications

The following sentence was removed from the Images section: “We recommend full-bleed images that are at least 1476 x 1970 pixels (double the size of a single page in iBooks on the iPad) up to a 2 million pixel limit.” It was removed because the size (1476 x 1970 pixels) results in an image that is more than 2 million pixels.

Embedding text in images creates issues that cause a large number of customer complaints: customers can’t use the dictionary or search the text, and in addition, the book becomes not accessible for persons with disabilities. Therefore, books with images that contain embedded text will be rejected from sale in the iBookstore.

Changes in iBookstore Asset Guide 4.5 Revision 1

Picture Book Support

New features have been added to support how a book displays when a customer opens a fixed-layout (picture) book. Fixed-layout books require that a display option be set to indicate the EPUB has a fixed-layout (“fixed-layout”=true). See [“Configuring Display Options”](#) (page 25) for instructions. Other display options for fixed-layout books specify if the EPUB should open to a two-page spread, and open in portrait or landscape orientation. Display options can be specified by platform (iPad and iPhone/iPod Touch).

Embedded Font Support

EPUBs can now use embedded fonts, in addition to the already-supported system fonts. If you want to use embedded fonts, you must specify that the EPUB contains fonts. Otherwise, the embedded fonts will not be respected, and user-specified fonts will be used instead. See [“Embedding Fonts”](#) (page 12) for details.

Navigation Support

In the OPF .opf file, the <spine> element is used to indicate the linear reading order of the content. When the person reading the book uses “next page” navigation, the pages are displayed based on the spine order. If a spine item is auxiliary to the main flow of the book (for example, an answer key in a textbook), you can use the optional linear attribute set to no to skip over the item to avoid disrupting the reading flow.

Page Break Support

In standard, reflowable EPUBs, you can use the CSS properties page-break-before and page-break-after to add page breaks before or after an element. See [“Page Breaks”](#) (page 9).

Changes in iBookstore Asset Guide 4.5

First release of the standalone asset specification for books. (The version number of 4.5 was used to match the current version of the schema.) This guide contains only the video and audio source formats for books; it does not list formats for music, film, and TV. An additional chapter describes best practices in preparing book content for the iBookstore.

