Basic Book Builder

A Pandoc template for building books, documents and articles

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Licensing

Open Source Edition (PDF and HTML)

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Chapter 1

Introduction

This is a basic book (or article / document) builder template based on a Pandoc(*Pandoc - Index*, n.d.) build process in conjunction with a number of other tools to generate PDF, HTML, LaTex, Markdown, ODT, DOCX, and Epub book output formats from a single set Markdown source content , which can optionally be edited as an Obsidian vault.

This **basic book builder**(*Jehaverlack/Basic-Book-Builder*, n.d.) template has been curated by John Haverlack.(*John Haverlack | ACEP*, n.d.)

Chapter 2

Getting Started

2.1 Cloning the Basic Book Builder

Clone the repository

```
git clone https://github.com/jehaverlack/basic-book-builder.git
```

Navigate to the repo directory

```
cd basic-book-builder
```

2.2 Setting Up Build Environment

Debian Linux

This script only support Debian based Linux system (Debian, Ubunutu, Zorin, etc) This script has not been widely tested across platforms

Setup Build Environment

```
./scripts/setup-linux-deb.sh
```

For more information on setting up the build environment for your system see Appendix A.

2.3 Testing

If you can build all format for the **Basic Book Build** then you have a working build environment.

Testing Build Environment
`make all`

2.4 Creating a New Project

2.4.1 Zotero Configuration (Optional)

Chapter 3

Usage

3.1 Editing Content

3.2 Building

3.2.1 PDF

```
make pdf
```

NOTE: Building the PDF also builds the **LaTeX** version of the book.

3.2.2 HTML

```
make html
```

3.2.3 DocX

```
make docx
```

NOTE: DocX is a work in progress. Frontmatter and formatting need work.

3.2.4 ODT

```
make odt
```

NOTE: ODT is a work in progress. Frontmatter and formatting need work.

3.2.5 Make All

To build all supported formats

`make all`

3.3 Callouts

A few callout box styles have been added to easily highlight content.

Established Concept

Einsteins Relativistic Dynamics Equations

$$E^2 = (m_0 \cdot c^2)^2 + (p \cdot c)^2$$

Proposed Concept

With the speed of light, $c = 1$:

$$E^2 = m_0^2 + p^2$$

Speculative Concept

With the speed of light, $c = 1$:

$$E^2 = m_0^2 + p^2$$

Caution Note

Beware of this section.

Warning Note

Beware of this section.

Alerts

Extreme Highlight

Appendix A

Appendix A

Appendix A: Build Environment Notes

A.1 Installing Pre-Requisites

Not Cross-platform Tested
For Debian / ZorinOS and likely Ubuntu based systems.

A.1.1 Required

A.1.1.1 Pandoc

- https://pandoc.org/
- Download

```
sudo apt install https://github.com/jgm/pandoc/releases/download/3.8.2.1
```

A.1.1.2 Code Editor

Code Editor
VSCodium is recommend for privacy (telemetry/tracking) reasons - https://vscodium.com/

But any text editor will work. #### make

```
sudo apt install make
```

A.1.1.3 jq and yq

```
sudo apt install jq yq
```

A.1.1.4 texlive

```
    sudo apt install texlive texlive-xetex texlive-latex-extra
    texlive-fonts-recommended texlive-fonts-extra
```

A.1.1.5 MathJax

- https://www.mathjax.org/

```
wget https://registry.npmjs.org/mathjax/-/mathjax-3.2.2.tgz
tar xzf mathjax-3.2.2.tgz
mv package/es5/* lib/mathjax
rm -rf package mathjax-3.2.2.tgz
```

TODO

This need to be rolled into a setup script.

A.1.2 Optional

The following are not strictly requires to use this book builder template.

A.1.2.1 Obsidian

Highly Recommended

Editing book chapter content in Obsidian is a very productive means for editing Markdown source content.

- https://obsidian.md/
- Deb Package

```
sudo apt install https://github.com/obsidianmd/obsidian-releases/releases/do
```

A.1.2.2 Zotero

Highly Recommended
If you need to managed citations and references, Zotero integration is highly recommended.

- https://www.zotero.org/

```
sudo cp ./scripts/deps/zotero.list /etc/apt/sources.list.d/
sudo apt update
sudo apt install zotero
```

A.1.2.2.1 Better BibTex for Zotero Install the Better BibTex Plugin for Zotero - Zotero > Tool > Plugins

A.1.2.2.2 Export citations.bib

- Zotero > File > Export Library > Format: Better BibTeX

☐ Keep Updated
☐ Save to: ~/Documents/Lib/zotero.bib
☐ Symlink your ~/Documents/Lib/Citations.bib to basic-book-builder/lib/zotero.bib

A.1.2.2.3 Zotero Connector Browser Plugin

- https://chromewebstore.google.com/detail/zotero-connector/ekhagklcjbdpajgpjgmbionohlp

Provides you the ability to auto add Web resources to your Zotero citation database.

A.1.2.3 lmodern

```
sudo apt install lmodern
```

A.1.2.4 epubcheck

```
sudo apt install epubcheck
```

A.1.2.5 foliate

An EPub Reader

- https://johnfactotum.github.io/foliate/

```
sudo apt install https://github.com/johnfactotum/foliate/releases/download/2
```

A.1.2.6 calibre

An EPub Reader

- https://calibre-ebook.com

```
sudo apt install calibre
```

A.2 Editing the Configuration

Glossary

Term	Description
AST (Abstract Syntax Tree)	Pandoc's internal structured representation of a document. Lua filters operate on the AST before rendering to a target format.
Bibliography	A `.bib` file (e.g., Zotero export) used by Pandoc with `citeproc` to generate formatted citations and reference lists.
Callout	A styled block (e.g., `[!warning]`) transformed by Lua filters into format-specific output such as LaTeX environments or HTML `<div>` elements.
Defaults File (YAML)	A Pandoc configuration file defining output format, filters, metadata, and rendering options (e.g., `pdf.yaml`, `html.yaml`).
DOCX	Microsoft Word document format generated by Pandoc; styling is controlled via a `reference.docx` file.
Filter (Lua)	A script that modifies Pandoc's AST before rendering. Used in this workflow for callouts and other structural transformations.
Frontmatter	Format-specific content inserted before the main body (e.g., `frontmatter.tex`, `frontmatter.html`, `frontmatter-docx.md`).
HTML	Web output format generated by Pandoc, typically styled via CSS and supporting interactive features.
LaTeX	Typesetting system used for high-quality PDF generation via XeLaTeX in this workflow.
Lua Filter	A lightweight scripting extension used by Pandoc to customize document transformations programmatically.
Makefile	Automation script orchestrating the build pipeline for PDF, HTML, DOCX, ODT, and Markdown outputs.
Markdown	Plain-text markup language serving as the source format for all outputs in the workflow.

Term	Description
Metadata	Key–value pairs (e.g., `metadata.yaml`) defining title, author, license, version, and other document variables.
ODT	OpenDocument Text format used by LibreOffice; similar to DOCX but open-standard.
Pandoc	Universal document converter used to transform Markdown into PDF, HTML, DOCX, ODT, EPUB, and more.
PDF	Portable Document Format output produced via Pandoc + XeLaTeX.
Reference Document	A DOCX or ODT file defining styles (fonts, headings, spacing) used when generating Word/LibreOffice outputs.
Resource Path	Directories Pandoc searches for images, diagrams, and other assets during rendering.
Template	A format-specific layout file (e.g., LaTeX template) used to control document structure beyond styling.
TOC (Table of Contents)	Automatically generated navigation structure controlled by `toc` and `toc-depth` options.
XeLaTeX	LaTeX engine used to generate PDFs with modern font support (via `fontspec`).
Zotero	Reference manager used to generate `.bib` files for citation processing with Pandoc.

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Bibliography

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