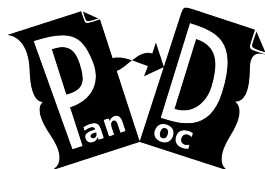


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# PDF Generation with Pandoc and GitHub Actions

How to generate good looking PDFs from Markdown files using Pandoc and how to automate the process with GitHub Actions

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# 1 Introduction

This document explores how to generate a PDF from a Markdown file using Pandoc.

## 1.1 Requirements

Here are the requirements for each level of complexity described in the next section:

### 1.1.1 Level 1

- Pandoc<sup>1</sup>
- LaTeX<sup>2</sup>

### 1.1.2 Level 2

- Pandoc
- LaTeX
- LaTeX packages:

```
sudo tlmgr install adjustbox footnotebackref pagecolor csquotes  
mdframed zref needspace sourcesanspro sourcecodepro titling  
selnolig lualatex-math
```

(for Mac users)

### 1.1.3 Level 3

None! Everything is done in a container in the cloud.

## 1.2 Contributors

This is a small project I did in my free time to help generate good-looking documentation for my school projects. Feel free to make pull requests!

---

<sup>1</sup><https://pandoc.org/>

<sup>2</sup><https://www.latex-project.org/get/>

## 2 Usage

There are three levels of complexity:

### 2.1 Simple PDF Generation

To generate a basic PDF without special formatting, use:

```
pandoc <file.md> -o <file.pdf>
```

### 2.2 Enhanced PDF with Template

To generate a PDF that uses the [eisvogel.tex](#) template from the [pandoc-latex-template](#)<sup>3</sup> repository, use:

```
pandoc -s -o <file.pdf> -f markdown_strict+backtick_code_blocks+
  pipe_tables+auto_identifiers+yaml_metadata_block+implicit_figures+
  table_captions+footnotes+smart+escaped_line_breaks+header_attributes --
  data-dir=pandoc --template eisvogel.tex --toc --listings --columns=50
  --number-sections --dpi=300 --pdf-engine=xelatex -M date="$(date +%Y-%m
  -%d)" md/HEADER.YAML md/*.md
```

Ensure your directory structure is as follows:

```
.
+-- assets
|   +-- (...)
|   +-- your-assets.png
+-- md
|   +-- (...)
|   +-- your-files.md
|   +-- HEADER.YAML
+-- pandoc
    +-- templates
        +-- eisvogel.tex
```

### 2.3 Automated PDF Generation with GitHub Actions

Artifacts generated by the workflow are available in the Actions tab<sup>4</sup> of this repository and are also pushed to the root of the [docs](#) folder.

For more details, check the GitHub workflow file.


<sup>3</sup><https://github.com/Wandmalfarbe/pandoc-latex-template>

<sup>4</sup><https://github.com/Nishogi/pdf-from-markdown/actions>

### 3 Sources

#### Markdown Syntax

<https://www.markdownguide.org/basic-syntax/>



# Markdown Cheatsheet

A lightweight markup language with plain text formatting syntax.

## Headers

# This is Heading 1 - <h1>  
 ## This is Heading 2 - <h2>  
 ### This is Heading 3 - <h3>  
 #### This is Heading 4 - <h4>  
 ##### This is Heading 5 - <h5>  
 ##### This is Heading 6 - <h6>

## Emphasis

\*This text have an italic font style\_  
 \_This text have an italic font style\_  
 \*\*This text have an bold font style\*\*  
 \_\_This text have an bold font style\_\_  
 \*italics \*\*bold and italics\*\* italics\*  
 \*\*bold \_bold and italic\_ bold\*\*  
 ~~Strikethrough this text~~

## Horizontal Rules

Three or more:  
 \*\*\* (asterisks)  
 \_\_\_ (underscores)  
 --- (hyphens)

## Blockquotes

> This indicates that the enclosed text is an  
 > extended quotation and is rendered visually by  
 > indentation. (HTML <blockquote> Element)

## Lists

Unordered List  
 \* Main Item 1  
 \* Main Item 2  
 \* Subitem 2a  
 \* Subitem 2b  
 Unordered Lists Can Be:  
 \* Asterisks  
 - Minus  
 + Plus  
 Ordered List  
 1. Main Item 1  
 2. Main Item 2  
 3. Main Item 3  
 3.1 Subitem 3a  
 3.2 Subitem 3b

## Task List

- [x] completed item  
 - [ ] incomplete item

## Emoji

Emojis on GitHub: [www.emoji-cheat-sheet.com](http://www.emoji-cheat-sheet.com)  
 :+1: :sparkles: :camel: :tada:  
 :rocket: :metal: :octocat:

## Backslash Escapes

\\*literal asterisks\  
 \ backslash  
 ` backtick  
 \* asterisk  
 \_ underscore  
 {} curly braces  
 [] square brackets  
 () parentheses  
 # hashmark  
 + plus sign  
 - minus sign (hyphen)  
 . dot  
 ! exclamation mark

## Code Blocks

```
```java
public class MyClass {
}
...
Inline `code`.
```

## Images

![Logo](/images/logo.png)  
 ![Logo](/images/logo.png "Image Title")  
 ![Logo](https://www.images.com/logo.png)  
 ![Logo](https://www.images.com/logo.png "Title")  
 ![Logo][image\_logo]  
 [image\_logo]: https://www.images.com/logo.png

## Links


<https://www.code2bits.com>  
 [Code2Bits](https://www.code2bits.com)  
 [Code2Bits](https://www.code2bits.com "Title")  
 [Code2Bits][URL of Code2Bits]  
 [Code2Bits][1]  
 My homepage is at the following [link].  
 [URL of Code2Bits]: <http://www.code2bits.com>  
 [1]: <https://www.code2bits.com>  
 [link]: <https://www.code2bits.com>

## Tables

Header 1	Header 2	Header 3
Content	Content	Content
Content	Content	Content

Version 0.2

<https://www.code2bits.com>



**Figure 1:** Markdown Cheatsheet

#### CI with Pandoc

<https://gitlab.com/pandoc/pandoc-ci-example>

#### Templating with Pandoc

<https://github.com/alexeygumirov/pandoc-for-pdf-how-to>

#### GitHub Actions

<https://docs.github.com/en/actions>