



# Easily Going Beyond Markdown with **Material for MkDocs**

Tool the Docs devroom @ FOSDEM'24 | 20240203 | Brussels

*Kenneth Hoste (@boegel) | Martin Donath (@squidfunk)*

# # About the speaker(s)


## ***Kenneth Hoste (@boegel)***

- HPC system administrator at UGent (Belgium) since 2010 (<https://ugent.be/hpc>) - *supercomputers!*
- Lead developer of EasyBuild (<https://easybuild.io>)
- Involved in way too many FOSS projects...
- FOSDEM visitor & active participant since 2013
- **Big fan of Material for MkDocs since ~2021**

## ***Martin Donath (@squidfunk)***

- Lead developer of Material for MkDocs

# # Why this talk?

- **MkDocs & Material for MkDocs are *\*great\****
- Easy to install and use, great results with minimal effort, tons of great features, actively developed, **open source**, ...
- **More people should know about it (and use it)!**
- There has never been a talk at FOSDEM on (Material for) MkDocs... 

# # My journey with Material for MkDocs

- First used it in 2021 to create an EasyBuild tutorial
- **Got convinced that I should be using it for all my docs...**
- Started (helping with) porting existing docs to it:  
EasyBuild (was using Sphinx), HPC-UGent (was using LaTeX)
- New documentation & tutorials I was involved in since then  
have always used Material for MkDocs!

# # What is MkDocs?

- **Static site generator**
- Focused on building **software documentation**
- Documentation sources are written in **Markdown** format
- A single YAML file is used for configuration: **mkdocs.yml**
- Implemented in Python
- Easy to install, use, customize, extend, ...

# # Getting Started with MkDocs

- 0) Install MkDocs: **pip install mkdocs**
- 1) Create landing page for your docs: **docs/index.md**
- 2) Create MkDocs configuration file: **mkdocs.yml**
- 3) Build site: **mkdocs build**
- 4) Check result: open **site/index.html** in your browser
- 5) Check for problems: **mkdocs build --strict**
- 6) Start live preview: **mkdocs serve**
- 7) Go write your documentation!

**Let's do a live demo...**



Material for MkDocs  
Installation + configuration

Install the `mkdocs-material` Python package:

```
pip install mkdocs-material
```

# # What is Material for MkDocs?



- Theme for MkDocs
- Includes various plugins & extensions for MkDocs
- **“MkDocs with Batteries Included”**
- Easy to install, use, configure, ...

# # Using Material for MkDocs

0) Install Material for MkDocs: **pip install mkdocs-material**

1) Update **mkdocs.yml** to use **material** as **theme**

*mkdocs.yml*

```
theme:  
name: material
```

Watch your documentation transform...

- Looks way better!
- Search is *\*fast\**, search results are great
- There are whole bunch of additional features to play with...

(some require more plugins/extensions/configuration in **mkdocs.yml**)





# # Colors

You can easily tweak the primary & accent colors

*mkdocs.yml*

```
theme:  
  name: material  
  palette:  
    primary: purple  
    accent: blue
```



Easily Going Beyond MarkDown with Material for MkDocs (FOSDEM'24)

Easily Going Beyond MarkDown  
with Material for MkDocs  
(FOSDEM'24)

- Introduction
- Getting Started with MkDocs
- Material for MkDocs
- Plugins

## Material for MkDocs

### Installation + configuration

Install the `mkdocs-material` Python package:

```
pip install mkdocs-material
```



Easily Going Beyond MarkDown with Material for MkDocs (FOSDEM'24)

Easily Going Beyond MarkDown  
with Material for MkDocs  
(FOSDEM'24)

- Introduction
- Getting Started with MkDocs
- Material for MkDocs
- Plugins

## Material for MkDocs

### Installation + configuration

Install the `mkdocs-material` Python package:

```
pip install mkdocs-material
```

Material for MkDocs

## # Light/dark mode

Easy switching, can follow system default

*mkdocs.yml*

```
theme:  
  name: material  
  palette:  
    # light mode  
    - scheme: default  
    toggle:  
      icon: material/brightness-7  
    # dark mode  
    - scheme: slate  
    toggle:  
      icon: material/brightness-6
```

☰ Easily Going Beyond MarkDown with Material for MkDocs (FOSDEM'24)



Material for MkDocs

Installation + configuration

Install the `mkdocs-material` Python package:

```
pip install mkdocs-material
```



Easily Going Beyond MarkDown with Material for MkDocs (FOSDEM'24)



Material for MkDocs

Installation + configuration

Install the `mkdocs-material` Python package:

```
pip install mkdocs-material
```

## # Content tabs

A page can have multiple “internal tabs”

Chimay   **Karmeliet**   Leffe

---

*Karmeliet* is a fantastic blond Belgian beer.

*mkdocs.yml*

```
markdown_extensions:  
  - pymdownx.superfences  
  - pymdownx.tabbed:  
      alternate_style: true
```

*docs/example.md*

```
=== "Chimay"  
  
    Chimay is a great Belgian trappist beer.  
  
=== "Karmeliet"  
  
    *Karmeliet* is a fantastic blond Belgian beer.  
  
=== "Leffe"  
  
    Friends don't let friends drink Leffe.
```

## # Code blocks with syntax highlighting

Via Pygments, at build time, with copy button (top-right corner)

*mkdocs.yml*


```
theme:  
  ...  
  features:  
    - content.code.copy  
markdown_extensions:  
  - pymdownx.superfences  
  - pymdownx.highlight
```

*docs/example.md*

```
```python  
# Hello world example (Python)  
print("Hello World!")  
zero_to_ten_double = [2*x for x in range(10)]  
```
```


*(in rendered documentation)*

```
# Hello world example (Python)  
print("Hello World!")  
zero_to_ten_double = [2*x for x in range(10)]
```




## # Admonitions: notes, warnings, tips, ...


Broad variety of types, title can be customized

 **Note**


This is an example of a note.

 **Warning**


This is an example of a warning.

 **Example**

This is an example of a example.

 **Danger**

This is an example of a danger.

 **Example of a tip**

This is an example of a tip with a custom title.

*mkdocs.yml*

```
markdown_extensions:  
- pymdownx.superfences  
- admonition  
- pymdownx.details
```

*docs/example.md*

```
!!! note  
    Example of a note.  
  
!!! tip "Custom title"  
    Example tip.
```

Material for MkDocs

## # Icons & emoji 🥰

Use to search engine at

[squidfunk.github.io/mkdocs-material/reference/icons-emojis](https://squidfunk.github.io/mkdocs-material/reference/icons-emojis)

*mkdocs.yml*

```
markdown_extensions:  
  - attr_list  
  - pymdownx.emoji:  
      emoji_index: !!python/name:material.extensions.emoji.twemoji  
      emoji_generator: !!python/name:material.extensions.emoji.to_svg
```

*docs/example.md*

```
:flag_be: :heart: :beer:
```



```
:beer: :beers: :beer: :arrow_right: :nauseated_face:
```



## # Diagrams with Mermaid.js

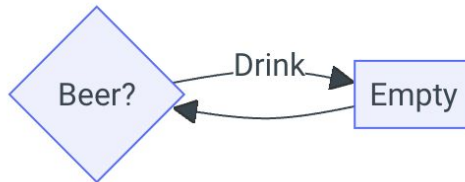
Include flow charts, state diagrams, pie charts, ...

*mkdocs.yml*

```
markdown_extensions:  
  - pymdownx.superfences:  
    custom_fences:  
      - name: mermaid  
        class: mermaid  
        format: !!python/name:pymdownx.superfences.fence_code_format
```

*docs/example.md*

```
``` mermaid  
graph LR  
  B{Beer?};  
  B -->|Drink| D[Empty];  
  D --> B;  
```
```



## # Blog

Dedicated plugin for integrating a blog in your docs.

*mkdocs.yml*

```
plugins:  
- blog
```

*docs/blog/posts/example.md*

```
---  
date: 2024-02-03  
---  
  
# FOSDEM'24  
  
Example of a blog post. :beer:  
  
!!! warning  
    Save some energy for tomorrow!
```


[← Back to index](#)

### Metadata

 February 3, 2024

 1 min read

## FOSDEM'24

Example of a blog post. 

### Warning

Save some energy for tomorrow!



## # Sponsorware funding model

- If you **sponsor** Material for MkDocs development, you get **exclusive access to new features** via *Insiders*
- Features are merged into open source release when a predefined **funding goal** (\$XXX/month) is hit.
- Very interesting funding model!

[squidfunk.github.io/mkdocs-material/insiders](https://squidfunk.github.io/mkdocs-material/insiders)

## # More features + documentation

Material for MkDocs can do a lot more which we didn't cover

- Mathematical formula (via MathJax, KaTeX)
- Sub- and superscripts, tooltips, buttons, footnotes, ...
- Annotations, grids, tables, navigation menu, ...
- **Publishing to GitHub Pages or GitLab Pages**

See [squidfunk.github.io/mkdocs-material/reference](https://squidfunk.github.io/mkdocs-material/reference)



# Easily Going Beyond Markdown with **Material for MkDocs**

Tool the Docs devroom @ FOSDEM'24 | 20240203 | Brussels

*Kenneth Hoste (@boegel) | Martin Donath (@squidfunk)*