# **Material for MkDocs**

A Material Design theme for MkDocs

## Table of contents

1.	Getting started	5
	1.1 Installation	5
	1.1.1 with pip recommended	5
	1.1.2 with docker recommended	5
	1.1.3 with git	6
	1.2 Configuration	6
	1.2.1 Feature flags	7
	1.2.2 Language	8
	1.2.3 Color scheme	9
	1.2.4 Color palette	10
	1.2.5 Fonts	11
	1.2.6 Icons	11
	1.2.7 Logo	11
	1.2.8 Favicon	12
	1.3 Extras	12
	1.3.1 Adding a source repository	12
	1.3.2 Adding social links	12
	1.3.3 Adding a Web App Manifest	12
	1.4 Integrations	13
	1.4.1 Google Analytics	13
	1.4.2 Disqus	13
	1.5 Extensions	13
	1.6 Plugins	14
2.	Extensions	15
	2.1 Admonition	15
	2.1.1 Configuration	15
	2.1.2 Usage	15
	2.1.3 Types	17
	2.2 CodeHilite	22
	2.2.1 Configuration	22
	2.2.2 Usage	22
	2.2.3 Supported languages excerpt	25
	2.3 Footnotes	35
	2.3.1 Configuration	35
	2.3.2 Usage	35
	2.4 Metadata	37
	2.4.1 Configuration	37
	2.4.2 Usage	37

2.5 Permalinks	39
2.5.1 Configuration	39
2.5.2 Usage	39
2.6 PyMdown Extensions	40
2.6.1 Configuration	40
2.6.2 Usage	40
3. Plugins	45
3.1 Search	45
3.1.1 Installation	45
3.1.2 Configuration	45
3.1.3 Usage	46
3.2 Minification	47
3.2.1 Installation	47
3.2.2 Configuration	47
3.2.3 Usage	47
3.3 Revision date	48
3.3.1 Installation	48
3.3.2 Configuration	48
3.3.3 Usage	49
3.4 Awesome pages	50
3.4.1 Installation	50
3.4.2 Configuration	50
3.4.3 Usage	50
4. Releases	52
4.1 Upgrading to 5.x	52
4.1.1 Highlights	52
4.1.2 How to upgrade	52
4.2 Upgrading to 4.x	66
4.2.1 Highlights	66
4.2.2 How to upgrade	66
4.3 Upgrading	67
5. Customization	86
5.1 A great starting point	86
5.2 Adding assets	86
5.2.1 Additional stylesheets	86
5.2.2 Additional JavaScript	86
5.3 Extending the theme	86
5.3.1 Setup and theme structure	87
5.3.2 Overriding partials	87
5.3.3 Overriding template blocks	87

5.4 Theme development	88
5.4.1 Environment setup	89
5.4.2 Development mode	89
5.4.3 Build process	89
6. Data privacy	90
6.1 Third-party services	90
6.1.1 Google Fonts	90
6.1.2 Google Analytics and Disqus	90
7. Contributing	91
7.1 Submission context	91
7.1.1 Got a question or problem?	91
7.1.2 Found a bug?	91
7.1.3 Missing a feature?	91
7.2 Submission guidelines	91
7.2.1 Submitting an issue	91
7.2.2 Submitting a Pull Request (PR)	92
8. License	93

## 1. Getting started

#### 1.1 Installation

While there are several ways of installing Material for MkDocs, the recommended methods are either by using pip – the Python package manager – or by pulling the official Docker image.

#### 1.1.1 with pip recommended

Material for MkDocs can be installed with pip:

pip install mkdocs-material

Note that this will automatically install compatible versions of MkDocs, Markdown, Pygments and PyMdown Extensions. Material for MkDocs always strives to support the latest versions, so there's no need to install those packages separately.

#### Installation in a virtual environment

The best way to make sure that you end up with the correct versions and without any incompatibility problems between packages it to use a **virtual environment**. Don't know what this is or how to set it up? We recommend to start by reading a tutorial on virtual environments for Python.

#### ▲ Installation on macOS

When you're running the pre-installed version of Python on macOS, pip tries to install packages in a folder for which your user might not have the adequate permissions. There are two possible solutions for this:

- 1. **Installing in user space** (recommended): Provide the --user flag to the install command and pip will install the package in a user-site location. This is the recommended way.
- 2. **Switching to a homebrewed Python**: Upgrade your Python installation to a self-contained solution by installing Python with Homebrew. This should eliminate a lot of problems you could be having with pip.

#### Error: unrecognized theme 'material'

If you run into this error, the most common reason is that you installed MkDocs through some package manager (e.g. Homebrew or apt-get) and Material for MkDocs through pip, so both packages end up in different locations. MkDocs only checks its install location for themes.

#### 1.1.2 with docker recommended

The official Docker image is a great way to get up and running in a few minutes, as it comes with all dependencies pre-installed. Pull the image for the latest version with:

docker pull squidfunk/mkdocs-material

The mkdocs executable is provided as an entry point and serve is the default command. Start the development server in your project root – the folder where mkdocs.yml resides — with:

```
Unix

docker run --rm -it -p 8000:8000 -v ${PWD}:/docs squidfunk/mkdocs-material

Windows

docker run --rm -it -p 8000:8000 -v "%cd%":/docs squidfunk/mkdocs-material
```

#### 1.1.3 with git

Material for MkDocs can be directly used from GitHub by cloning the repository into a subfolder of your project root which might be useful if you want to use the very latest version:

```
git clone https://github.com/squidfunk/mkdocs-material.git
```

The theme will reside in the folder mkdocs-material/material.

### 1.2 Configuration

Depending on your installation method, you can now add the following lines to mkdocs.yml in your project root. If you installed Material for MkDocs using a package manager, add:

```
theme:
name: material
```

If you cloned Material for MkDocs from GitHub add:

```
theme:
name: null
custom_dir: mkdocs-material/material
```

MkDocs includes a development server, so you can preview your changes as you write your documentation. The development server can be started with the following command:

```
mkdocs serve
```

Point your browser to http://localhost:8000 and your documentation should greet you in a new look. If you're starting from scratch, the following configuration can be used as a starting point:

#### **Example configuration**

This is an excerpt from the mkdocs.yml used to render these pages:

```
# Project Information
Site_mane: Naterial For Modes
Site_description: Atterial Design there for Modes
Site_description: Atterial Design there for Modes
Site_muther: Mutin Doubth
Site_muther: Mutin Doubth
Site_muther: Supplication
# Repository
repo_mane: Supplication
# Repository
repo_mane: Supplication
# Compright
Compright Copyright Copy; 2016 - 2020 Mortin Doubth
# Compright: Copyright Copyr; 2016 - 2020 Mortin Doubth
# Compright: Copyright Copyr; 2016 - 2020 Mortin Doubth
# Compright: Copyright Copyr; 2016 - 2020 Mortin Doubth
# Compright: Copyright Copyr; 2016 - 2020 Mortin Doubth
# Compright: Copyright Copyr; 2016 - 2020 Mortin Doubth
# Compright
# Copyright Copyright Copyr; 2016 - 2020 Mortin Doubth
# Copyright: Copyright Copyr; 2016 - 2020 Mortin Doubth
# Copyright: Copyright Copyright Copyright
# Copyright Copyright Copyright
# Copyright Copyright
# Copyright
#
```

#### 1.2.1 Feature flags

These optional features are hidden behind flags and can be explicitly enabled in mkdocs.yml.

#### Instant loading

The (still experimental) *instant loading* feature will intercept clicks on all internal links and dispatch them directly via XHR without a full page reload. It can be enabled from <code>mkdocs.yml</code> with:

```
theme:
features:
- instant
```

The resulting page is parsed and injected and all event handlers and components are automatically rebound. This means that **Material for MkDocs behaves like a Single Page Application**, which is especially useful for large documentation sites that come with a huge search index, as the search index will now remain intact in-between document switches.

#### Tabs

The *tabs* feature will render *top-level subsections* in another navigational layer below the header on big screens (but leave them untouched on mobile). It can be enabled from <code>mkdocs.yml</code> with:

```
theme:
features:
- tabs
```

Note that all *top-level pages* (i.e. all top-level entries that directly refer to an \*.md file) defined inside the nav entry of mkdocs.yml will be grouped under the first tab which will receive the title of the first page.

This means that there will effectively be no collapsible subsections for the first tab, as each subsection is rendered as another tab. If you want more fine-grained control, i.e., collapsible subsections for the first tab, you can move all *top-level pages into a subsection*, so that the top-level is entirely made up of subsections. Note that tabs are only shown for larger screens, so make sure that navigation is plausible on mobile devices.

As an example, see the mkdocs.yml used to render these pages.

#### 1.2.2 Language

Default: en

Material for MkDocs supports internationalization (i18n) and provides translations for all template variables and labels. You can set the language from <code>mkdocs.yml</code> with:

theme: language: en The following language codes are supported:

- af / Afrikaans
- ar / Arabic
- my / Burmese
- · ca / Catalan
- zh / Chinese (Simplified)
- zh-Hant / Chinese (Traditional)
- zh-TW / Chinese (Taiwanese)
- hr / Croatian
- · cs / Czech
- · da / Danish
- nl / Dutch
- en / English
- et / Estonian
- fi / Finnish
- fr / French
- gl / Galician
- de / German
- gr / Greek
- he / Hebrew
- hi / Hindi
- · hu / Hungarian
- · id / Indonesian

- it / Italian
- ja / Japanese
- kr / Korean
- no / Norwegian
- nn / Norwegian (Nynorsk)
- fa / Persian
- pt / Polish
- pt / Portuguese
- ro / Romanian
- ru / Russian
- sr / Serbian
- sh / Serbo-Croatian
- sk / Slovak
- si / Slovenian
- · es / Spanish
- sv / Swedish
- th / Thai
- tr / Turkish
- uk / Ukrainian
- vi / Vietnamese
- Add language

While many languages are read ltr (left-to-right), Material for MkDocs also supports rtl (right-to-left) directionality which is inferred from the selected language, but can also be set with:

```
theme:
direction: rtl
```

#### 1.2.3 Color scheme

Default: default

Material for MkDocs supports two color schemes: a light mode, which is just called default, and a dark mode, which is called slate. The color scheme can be set from mkdocs.yml:

```
theme:
palette:
scheme: slate
```

Click on a color name to change the color scheme of the theme:

#### 1.2.4 Color palette

The Material Design color palette comes with 20 hues, all of which are included with Material for MkDocs. Primary and accent colors can be set from the project root's mkdocs.yml:

```
theme:
palette:
primary: indigo
accent: indigo
```

If the colors are set with these configuration options, an additional CSS file that includes the hues of the color palette is automatically included and linked from the template.

### **6** Custom colors with CSS variables

Material for MkDocs defines all colors as CSS variables. If you want to customize the colors beyond the palette (e.g. to use your brand's colors), you can add an additional stylesheet and override the defaults:

#### Primary color

Default: indigo

Click on a color name to change the primary color of the theme:

lime yellow amber orange

**black** white

#### Accent color

Default: indigo

Click on a color name to change the accent color of the theme:

red pink purple deep purple indigo blue light blue cyan teal green light green lime yellow amber orange deep orange

#### 1.2.5 Fonts

Default: Roboto and Roboto Mono

The Roboto font family is the default font included with the theme, specifically the regular sans-serif type for text and the monospaced type for code. Both fonts are loaded from Google Fonts and can be changed to any valid webfont, like for example the Ubuntu font family:

```
theme:
font:
text: Ubuntu
code: Ubuntu Mono
```

The text font will be loaded in weights 400 and **700**, the monospaced font in regular weight. If you want to load fonts from other destinations or don't want to use Google Fonts for data privacy reasons, just set font to false:

```
theme:
font: false
```

#### 1.2.6 Icons

Default: material/library and fontawesome/brands/git-alt

Material for MkDocs uses icons in several places. Currently, the following icons can be changed from <code>mkdocs.yml</code>: the logo icon, the repository icon and the social link icons. While the social link icons are tied to the respective entries, the other icons can be changed by referencing a valid path (without the trailing <code>.svg</code>) relative to the <code>.icons</code> folder which comes with the theme:

```
theme:
icon:
logo: material/library
repo: fontawesome/brands/git-alt
```

All icons are directly inlined as \*.svg files, so no further requests will be made. Icon sets which are bundled with Material for MkDocs:

- Material Design icons (material): 5.1k icons
- FontAwesome icons (fontawesome): 1.6k icons
- GitHub's Octicons (octicons): 200 icons

You can use all those icons directly from Markdown!

#### 1.2.7 Logo

Default: icon set through theme.icon.logo

If you want to replace the icon in the header (screen) and drawer (mobile) with your brand's logo, you can place an image file in your docs folder and use the following option in mkdocs.yml:

```
theme:
logo: images/logo.svg
```

Ideally, the image should be a square with a minimum resolution of 96x96, leave some room towards the edges and be composed of high contrast areas on a transparent ground, as it will be placed on the colored header and drawer.

#### 1.2.8 Favicon

Default: assets/images/favicon.png

The default favicon can be changed with:

```
favicon: images/favicon.png
```

#### 1.3 Extras

#### 1.3.1 Adding a source repository

To include a link to the repository of your project within your documentation, set the following variables via your project's mkdocs.yml:

```
repo_name: squidfunk/mkdocs-material
repo_url: https://github.com/squidfunk/mkdocs-material
```

The name of the repository will be rendered next to the search bar on big screens and as part of the main navigation drawer on smaller screen sizes. Additionally, for GitHub and GitLab, the number of stars and forks is shown. Note that the repository icon can be explicitly set through theme.icon.repo.

Why is there an edit button at the top of every article?

If the repo\_url is set to a GitHub or BitBucket repository, and the repo\_name is set to GitHub or BitBucket (implied by default), an edit button will appear at the top of every article. This is the automatic behavior that MkDocs implements. See the MkDocs documentation on more guidance regarding the edit\_uri attribute, which defines whether the edit button is shown or not.

#### 1.3.2 Adding social links

Social accounts can be linked in the footer of the documentation using the icons which are bundled with the theme. Note that each icon must point to a valid path (without the trailing .svg) relative to the .icons folder which comes with the theme:

```
social:
 - icon: fontawesome/brands/github-alt
   link: https://github.com/squidfunk
  - icon: fontawes
                   ome/brands/twitter
   link: https://twitter.com/squidfunk
  - icon: fontawesome/brands/linkedin
    link: https://linkedin.com/in/squidfunk
```

By default, the link title will be set to the domain name, e.g. github.com. If you want to set a discernable name, e.g., to improve your Lighthouse score, you can set the name attribute on each social link.

### 1.3.3 Adding a Web App Manifest

A Web App Manifest is a simple JSON file that tells the browser about your web application and how it should behave when installed on the user's mobile device or desktop. You can specify such a manifest in mkdocs.yml:

```
extra:
manifest: manifest.webmanifest
```

### 1.4 Integrations

#### 1.4.1 Google Analytics

MkDocs makes it easy to integrate site tracking with Google Analytics. To enable tracking, which is disabled by default, you must add your tracking identifier to mkdocs.yml:

```
google_analytics:
- UA-XXXXXXXX-X
- auto
```

Besides basic page views, *site search* can also be tracked to better understand how people use your documentation and what they expect to find. To enable search tracking:

- 1. Go to your Google Analytics admin settings
- 2. Select the property for the respective tracking code
- 3. Go to the **view settings** tab.
- 4. Scroll down and enable site search settings
- 5. Set the **query parameter** to q.

#### 1.4.2 Disqus

Material for MkDocs is integrated with Disqus, so if you want to add a comments section to your documentation set the *shortname* of your Disqus project in <code>mkdocs.yml</code>:

```
extra:
disqus: your-shortname
```

The comments section is inserted on *every page*, *except the index page*. The necessary JavaScript is automatically included.

#### **A** Requirements

Note that  $\mbox{site\_url}$  must be set in  $\mbox{mkdocs.yml}$  for the Disqus integration to load properly.

Disqus can also be enabled or disabled for specific pages using Metadata.

#### 1.5 Extensions

Markdown comes with several very useful extensions, the following of which are not enabled by default but highly recommended, so enabling them should definitely be a good idea:

```
markdown_extensions:
- admonition
- codehilite:
    guess_lang: false
- toc:
    permalink: true
```

See the following list of extensions supported by Material for MkDocs including some more information on configuration and usage:

- Admonition
- Codehilite
- Footnotes
- Metadata
- Permalinks
- PyMdown Extensions

### 1.6 Plugins

MkDocs' plugin architecture makes it possible to add pre- or post-processing steps that sit between the theme and your documentation. For more information, see the following list of plugins tested and supported by Material for MkDocs including more information regarding installation and usage:

- Search (enabled by default)
- Minification
- Revision date
- · Awesome pages

For further reference, the MkDocs wiki contains a list of all available plugins.

### 2. Extensions

#### 2.1 Admonition

Admonition is an extension included in the standard Markdown library that makes it possible to add block-styled side content to your documentation, e.g. summaries, notes, hints or warnings.

### 2.1.1 Configuration

Add the following lines to mkdocs.yml:

```
markdown_extensions:
- admonition
```

#### 2.1.2 Usage

Admonitions follow a simple syntax: every block is started with !!!, followed by a single keyword which is used as the type qualifier of the block. The content of the block then follows on the next line, indented by four spaces.

#### Example:

```
!!! note
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Changing the title

By default, the Admonition title will equal the type qualifier in titlecase. However, it can be changed by adding a quoted string after the type qualifier.

#### Example:

```
!!! note "Phasellus posuere in sem ut cursus"

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod

nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor

massa, nec semper lorem quam in massa.
```

#### Result:

#### Phasellus posuere in sem ut cursus

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Removing the title

Similar to changing the title, the icon and title can be omitted by providing an empty string after the type qualifier:

#### Example:

```
!!! note ""

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Embedded content

Admonitions can contain all kinds of text content, including headlines, lists, paragraphs and other blocks – except code blocks, because the parser from the standard Markdown library does not account for those.

The PyMdown Extensions package adds an extension called SuperFences, which makes it possible to nest code blocks within other blocks, respectively Admonition blocks.

#### Example:

#### Note

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

```
Employees.EmployeeID,
Employees.Mame,
Employees.Salary,
Manager.Mame AS Manager
FROM
Employees
LEFT JOIN
Employees AS Manager
ON
Employees.ManagerID = Manager.EmployeeID
MHERE
Employees.EmployeeID = '087652';
```

Nunc eu odio eleifend, blandit leo a, volutpat sapien. Phasellus posuere in sem ut cursus. Nullam sit amet tincidunt ipsum, sit amet elementum turpis. Etiam ipsum quam, mattis in purus vitae, lacinia fermentum enim.

#### Collapsible blocks

The Details extension which is also part of the PyMdown Extensions package adds support for rendering collapsible Admonition blocks. This is useful for FAQs or content that is of secondary nature.

#### Example:

```
??? note "Phasellus posuere in sem ut cursus"
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:

#### Phasellus posuere in sem ut cursus

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

By adding a + sign directly after the start marker, blocks can be rendered open by default.

#### 2.1.3 Types

Admonition supports user-defined type qualifiers which may influence the style of the inserted block. Following is a list of type qualifiers provided by Material for MkDocs, whereas the default type, and thus fallback for unknown type qualifiers, is note.

#### Note

#### Example:

```
!!! note

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

- note
- seealso

#### Abstract

#### Example:

```
!!! abstract
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:

#### Abstract

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

- abstract
- summary
- tldr

#### Info

#### Example:

```
!!! info
    Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
    nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
    massa, nec semper lorem quam in massa.
```

#### Result:



#### 1 Info

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

- info
- todo

#### Tip

#### Example:

```
!!! tip
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
    nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
    massa, nec semper lorem quam in massa.
```

#### Result:



#### 

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

- tip
- hint
- important

#### Success

#### Example:

```
!!! success
   Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
   nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
   massa, nec semper lorem quam in massa.
```

#### Result:



#### Success

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

- success
- check
- done

#### Question

#### Example:

```
!!! question
   Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
   nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
   massa, nec semper lorem quam in massa.
```

#### Result:



#### Question

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

- question
- help
- faq

#### Warning

#### Example:

```
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:



#### Warning

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

- warning
- caution
- attention

#### **Failure**

#### Example:

```
!!! failure
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

- failure
- fail
- missing

#### Danger

#### Example:

```
!!! danger

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod

nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor

massa, nec semper lorem quam in massa.
```

#### Result:



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

- danger
- error

#### Bug

#### Example:

```
!!! bug
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

• bug

#### Example

#### Example:

```
!!! example
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:

#### **Example**

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

example

#### Quote

#### Example:

```
!!! quote
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:

#### 77 Quote

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

#### Qualifiers:

- quote
- cite

#### 2.2 CodeHilite

CodeHilite is an extension that adds syntax highlighting to code blocks and is included in the standard Markdown library. It uses Pygments during the compilation of the Markdown file to provide syntax highlighting for over 300 languages and has no JavaScript runtime dependency.

#### 2.2.1 Configuration

Add the following lines to mkdocs.yml:

```
markdown_extensions:
- codehilite
```

#### 2.2.2 Usage

#### Specifying the language

The CodeHilite extension uses the same syntax as regular Markdown code blocks, but needs to know the language of the code block. This can be done in three different ways.

#### VIA MARKDOWN SYNTAX RECOMMENDED

In Markdown, code blocks can be opened and closed by writing three backticks on separate lines. To add code highlighting to those blocks, the easiest way is to specify the language identifier directly after the opening block.

#### Example:

```
'`` python
import tensorflow as tf
```

#### Result:

```
import tensorflow as tf
```

#### VIA SHEBANG

Alternatively, if the first line of a code block contains a shebang, the language is derived from the path referenced in the shebang. This will only work for code blocks that are indented using four spaces, not for those encapsulated in three backticks.

#### Example:

```
#!/usr/bin/python
import tensorflow as tf
```

#### Result:

```
#!/usr/bin/python
import tensorflow as tf
```

#### VIA THREE COLONS

If the first line starts with three colons followed by a language identifier, the first line is stripped. This will only work for code blocks that are indented using four spaces, not for those encapsulated in three backticks.

#### Example:

```
:::python
import tensorflow as tf
```

#### Result:

```
import tensorflow as tf
```

#### Adding line numbers

Line numbers can be added to a code block by enabling the linenums flag in mkdocs.yml or adding linenums=1 right after the language identifier:

```
markdown_extensions:
- codehilite:
linenums: true
```

#### Example:

#### Result:

```
1 """ Bubble sort """
2  def bubble_sort(items):
3     for i in range(len(items) - 1 - i):
5          if items[j] > items[j + 1]:
6          items[j], items[j + 1], items[j]
```

#### Grouping code blocks

The Tabbed extension which is part of the PyMdown Extensions package adds support for grouping Markdown blocks with tabs. This is especially useful for documenting projects with multiple language bindings.

#### Example:

```
== "Bash"

"bash
#!/bin/bash
echo "Hello world!"

== "c"
#include <stdio.h>
int main(void) {
    printf("Hello world!\n");
    return 0;
}

== "c++
"include <lostream>
int main(void) {
    std::cout < "Hello world!" << std::endt;
    return 0;
}

== "c#"

"c#"

"c#"

"c#"

"c#"

"c#"

"cs

staic void Main(string[] args) {
    Console.Writeline("Hello world!");
    }
}
```

#### Result:

```
Bash

#!/bin/bash

echo "Hello world!"

C

#inctude stdio.h-
int main(void) {
    printf("Hello world!\n");
    return 0;
}

C++

#inctude siostream-
int main(void) {
    std::cout << "Hello world!" << std::endl;
    return 0;
}

C#

using System;

class Program {
    stati: void Main(string[] args) {
        Console.MriteLine("Hello world!");
    }
}
```

#### Highlighting specific lines

Specific lines can be highlighted by passing the line numbers to the <code>hl\_lines</code> argument placed right after the language identifier. Line counts start at 1.

#### Example:

#### Result:

```
""" Bubble sort """
def bubble_sort(items):

for i in range(len(items)):

for j in range(len(items) - 1 - i):

if items[j] > items[j + 1]:
    items[j], items[j + 1] = items[j]
```

#### 2.2.3 Supported languages excerpt

CodeHilite uses Pygments, a generic syntax highlighter with support for over 300 languages, so the following list of examples is just an excerpt.

#### Bash

```
#!/bin/bash
for OPT in "$@"
  case "$OPT" in
    '-f' ) canonicalize=1 ;;
'-n' ) switchlf="-n" ;;
  esac
# readlink -f
function __readlink_f {
  target="$1"
  while test -n "$target"; do
filepath="$target"
  cd `dirname "$filepath"`
     target=`readlink "$filepath"`
  /bin/echo $switchlf `pwd -P`/`basename "$filepath"`
if [ ! "$canonicalize" ]; then
  readlink $switchlf "$@"
else
  for file in "$@"
    case "$file" in
      -* ) ;;

* ) __readlink_f "$file" ;;
     done
fi
exit $?
```

C

```
extern size_t
pb_varint_scan(const uint8_t data[], size_t left) {
  assert(data && left);
left = left > 10 ? 10 : left;
#ifdef __SSE2__
   /* Mapping: remaining bytes ==> bitmask */
  static const int mask_map[] = {
    0x0000, 0x0001, 0x0003, 0x0007, 0x000F, 0x001F, 0x003F, 0x007F, 0x00FF, 0x03FF
  };
 /* Load buffer into 128-bit integer and create high-bit mask */
__m128i temp = _mm_loadu_si128((const __m128i *)data);
__m128i high = _mm_set1_epi8(0x80);
  /* Intersect and extract mask with high-bits set */
 int mask = _mm_movemask_epi8(_mm_and_si128(temp, high));
mask = (mask & mask_map[left]) ^ mask_map[left];
 /* Count trailing zeroes */
return mask ? __builtin_ctz(mask) + 1 : 0;
   /* Linear scan */
  size_t size = 0;
  while (data[size++] & 0x80)
   if (!--left)
return 0;
  return size;
#endif /* __SSE2__ */
```

#### C++

#### C#

#### Clojure

```
(clojure-version)
(defn partition-when
   (fn [rf]
     (let [a (java.util.ArrayList.)
fval (volatile! false)]
        (fn
           ([] (rf))
([result]
                (let [result (if (.isEmpty a)
                                   (unreduced (rf result v))))]
                  (rf result)))
           ([result input]
                 (if-not (and (f input) @fval)
                     (do
                       (vreset! fval true)
(.add a input)
result)
                    result)
(let [v (vec (.toArray a))]
(.clear a)
(let [ret (rf result v)]
(when-not (reduced? ret)
(.add a input))
                          ret))))))))
(into [] (partition-when
    #(.startsWith % ">>"))
    ["1d" "33" ">> 1" ">> 2" "22" ">> 3"])
```

#### Diff

#### Docker

```
# Install vnc, xvfb in order to create a 'fake' display and firefox
RUN apt-get update && apt-get install -y xllvnc xvfb firefox
RUN mkdir ~/.vnc
# Setup a password
RUN xllvnc -storepasswd 1234 ~/.vnc/passwd
# Autostart firefox (might not be the best way, but it does the trick)
RUN bash -c 'echo "firefox" >> /.bashrc'

EXPOSE 5900
CMD ["xllvnc", "-forever", "-usepw", "-create"]
```

#### Elixir

#### **Erlang**

```
circular(Defs) ->
  [ { { Type, Base }, Fields } ||
    { Type, Base }, Fields } <- Defs, Type == msg, circular(Base, Defs) ].</pre>
circular(Base, Defs) ->
  Fields = proplists:get_value({ msg, Base }, Defs),
circular(Defs, Fields, [Base]).
circular(_Defs, [], _Path) ->
false;

circular(Defs, [Field | Fields], Path) ->

case Field#field.type of
    { msg, Type } ->
case lists:member(Type, Path) of
          false ->
            Children = proplists:get_value({ msg, Type }, Defs),
            case circular(Defs, Children, [Type | Path]) of
false -> circular(Defs, Fields, Path);
               true -> true
          end;
true ->
            Type == lists:last(Path) andalso
               (length(Path) = 1 orelse not is_tree(Path))
       end:
       circular(Defs, Fields, Path)
```

#### F#

```
/// Asynchronously download retangles from the server
/// and decode the JSON format to F# Rectangle record
let [<Js>] getRectangles () : Async<Rectangle[]> = async {
    let req = XMLHttpRequest()
    req.Open("POST", "/get", true)
    let! resp = req.AsyncSend()
    return JSON.parse(resp) }

/// Repeatedly update rectangles after 0.5 sec
let [<Js>] updateloop () = async {
    while true do
    do! Async.Sleep(500)
    let! rects = getRectangles()
    cleanRectangles()
    rects |> Array.iter createRectangle }
```

#### Go

```
package main
import "fmt"

func counter(id int, channel chan int, closer bool) {
    for i := 0; i < 10000000; i++ {
        fmt.Println("process", id," send", i)
        channel <- 1
    }
    if closer { close(channel ) }
}

func main() {
    channel := make(chan int)
    go counter(1, channel, false)
    go counter(2, channel, true)

    x := 0

    // receiving data from channel
    for i := range channel {
        fmt.Println("receiving")
        x += i
    }

    fmt.Println(x)
}</pre>
```

#### HTML

#### Java

```
import java.util.LinkedList;
import java.lang.reflect.Array;
public class UnsortedHashSet<E> {
  private static final double LOAD_FACTOR_LIMIT = 0.7;
  private int size;
  private LinkedList<E>[] con;
  public UnsortedHashSet() {
 con = (LinkedList<E>[])(new LinkedList[10]);
}
  public boolean add(E obj) {
    int oldSize = size;
int index = Math.abs(obj.hashCode()) % con.length;
    if (con[index] == null)
  con[index] = new LinkedList<E>();
if (!con[index].contains(obj)) {
       con[index].add(obj);
       size++;
    if (1.0 * size / con.length > LOAD_FACTOR_LIMIT)
       resize();
    return oldSize != size;
  private void resize() {
    UnsortedHashSet<E> temp = new UnsortedHashSet<E>();
temp.con = (LinkedList<E>[])(new LinkedList[con.length * 2 + 1]);
    for (int i = 0; i < con.length; i++) {
   if (con[i] != null)
   for (E e : con[i])</pre>
            temp.add(e);
    con = temp.con;
  public int size() {
    return size;
```

#### JavaScript

```
var Math = require('lib/math');

var _extends = function (target) {
    for (var i = 1; i < arguments.Length; i++) {
        var source = arguments[i];
        for (var key in source) {
            target[key] = source[key];
        }
    }

    return target;
};

var e = exports.e = 2.71828182846;
    exports['default'] = function (x) {
        return Math.exp(x);
};

module.exports = _extends(exports['default'], exports);</pre>
```

#### **JSON**

#### Julia

#### Lua

```
local ffi = require("ffi")

ffi.cdef[[
    void Sleep(int ms);
    int poll(struct pollfd *fds, unsigned long nfds, int timeout);
]]

local sleep
if ffi.os == "Windows" then
function sleep(s)
    ffi.C.Sleep(s*1000)
    end
else
function sleep(s)
    ffi.c.poll(nil, 0, s * 1000)
    end
end

for i = 1,160 do
    io.write(","); io.flush()
    sleep(0.01)
end
io.write("\n")
```

#### MySQL

```
SELECT

Employees.EmployeeID,

Employees.Name,

Employees.Salary,

Manager.Name AS Manager

FROM

Employees

LEFT JOIN

Employees AS Manager

ON

Employees.ManagerID = Manager.EmployeeID

WHERE

EmployeeS.EmployeeID = '087652';
```

#### PHP

#### **Protocol Buffers**

```
syntax = "proto2";

package caffe;

// Specifies the shape (dimensions) of a Blob.
message BlobShape {
    repeated int64 dim = 1 [packed = true];
}

message BlobProto {
    optional BlobShape shape = 7;
    repeated float data = 5 [packed = true];
    repeated float diff = 6 [packed = true];

    repeated float diff = 6 [packed = true];

// 4D dimensions -- deprecated. Use "shape" instead.
    optional int32 num = 1 [default = 0];
    optional int32 channels = 2 [default = 0];
    optional int32 height = 3 [default = 0];
    optional int32 width = 4 [default = 0];
}
```

#### Python

```
A very simple MNIST classifier.

See extensive documentation at
    http://tensorflow.org/tutorials/mnist/beginners/index.md
"""

from __future__ import absolute_import
from __future__ import division
from __future__ import print_function

# Import data
from tensorflow.examples.tutorials.mnist import input_data
import tensorflow as tf

flags = tf.app.flags
FlAGS = flags.FLAGS
flags.DEFINE_string('data_dir', '/tmp/data/', 'Directory for storing data')

mnist = input_data.read_data_sets(FLAGS.data_dir, one_hot=True)

sess = tf.InteractiveSession()

# Create the model
x = tf.placeholder(tf.float32, [None, 784])
W = tf.Variable(tf.zeros(1784, 10]))
b = tf.Variable(tf.zeros(1784, 10]))
b = tf.Variable(tf.zeros(101)))
y = tf.nn.softmax(tf.matmul(x, W) + b)
```

#### Ruby

```
require 'finity/event'
require 'finity/machine'
require 'finity/state'
require 'finity/transition'
require 'finity/version'
module Finity
 class InvalidCallback < StandardError; end
 class MissingCallback < StandardError; end</pre>
 class InvalidState < StandardError; end
 # Class methods to be injected into the including class upon inclusion.
 module ClassMethods
   # Instantiate a new state machine for the including class by accepting a
    # block with state and event (and subsequent transition) definitions
   def finity options = {}, &block
     @finity ||= Machine.new self, options, &block
   # Return the names of all registered states.
   def states
     @finity.states.map { | name, _ | name }
   # Return the names of all registered events.
   def events
     @finity.events.map { | name, _ | name }
 # Inject methods into the including class upon inclusion.
 def self.included base
   base.extend ClassMethods
 end
```

#### Scala

```
// Every record of this DataFrame contains the label and
// features represented by a vector.
val df = sqlContext.createDataFrame(data).toDF("label", "features")

// Set parameters for the algorithm.
// Here, we limit the number of iterations to 10.
val lr = new LogisticRegression().setMaxIter(10)

// Fit the model to the data.
val model = lr.fit(df)

// Inspect the model: get the feature weights.
val weights = model.weights

// Given a dataset, predict each point's label, and show the results.
model.transform(df).show()g
```

#### **XML**

#### 2.3 Footnotes

Footnotes is another extension included in the standard Markdown library. As the name says, it adds the ability to add inline footnotes to your documentation.

### 2.3.1 Configuration

Add the following lines to mkdocs.yml:

markdown\_extensions:
- footnotes

#### 2.3.2 Usage

The markup for footnotes is similar to the standard Markdown markup for links. A reference is inserted in the text, which can then be defined at any point in the document.

#### Inserting the reference

The footnote reference is enclosed in square brackets and starts with a caret, followed by an arbitrary label which may contain numeric identifiers [1, 2, 3, ...] or names [Granovetter et al. 1998]. The rendered references are always consecutive superscripted numbers.

#### Example:

Lorem ipsum[^1] dolor sit amet, consectetur adipiscing elit.[^2]

#### Result:

Lorem ipsum<sup>1</sup> dolor sit amet, consectetur adipiscing elit.<sup>2</sup>

#### Inserting the content

The footnote content is also declared with a label, which must match the label used for the footnote reference. It can be inserted at an arbitrary position in the document and is always rendered at the bottom of the page. Furthermore, a backlink is automatically added to the footnote reference.

#### ON A SINGLE LINE

Short statements can be written on the same line.

#### Example:

[^1]: Lorem ipsum dolor sit amet, consectetur adipiscing elit.

#### Result:

Jump to footnote at the bottom of the page

#### ON MULTIPLE LINES

Paragraphs should be written on the next line. As with all Markdown blocks, the content must be indented by four spaces.

#### Example:

```
[^2]:
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod
nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor
massa, nec semper lorem quam in massa.
```

#### Result:

#### Jump to footnote at the bottom of the page

- 1. Lorem ipsum dolor sit amet, consectetur adipiscing elit.  $\leftarrow$
- 2. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla et euismod nulla. Curabitur feugiat, tortor non consequat finibus, justo purus auctor massa, nec semper lorem quam in massa.

# 2.4 Metadata

Metadata is an extension included in the standard Markdown library that makes it possible to control certain properties in a page-specific context, e.g. the page title or description.

# 2.4.1 Configuration

Add the following lines to mkdocs.yml:

```
markdown_extensions:
- meta
```

# 2.4.2 Usage

Metadata is written as a series of key-value pairs at the beginning of the Markdown document, delimited by a blank line which ends the metadata context. Naturally, the metadata is stripped from the document before rendering the actual page content and made available to the theme.

# Example:

```
title: Lorem ipsum dolor sit amet
description: Nullam urna elit, malesuada eget finibus ut, ac tortor.
path: path/to/file
source: file.js
---
# Headline
...
```

See the next section which covers the supported metadata.

# Setting a hero

Material for MkDocs exposes a simple text-only page-local hero via Metadata, as you can see on the current page when you scroll to the top. It's as simple as:

```
hero: Set heroes with metadata
```

# Linking sources

When a document is related to a specific source file and the repo\_url is defined inside the project's mkdocs.yml, the file can be linked using the source key:

```
source: file.js
```

The filename is appended to the <code>repo\_url</code> set in <code>mkdocs.yml</code>, but can be prefixed with a <code>path</code> to ensure correct path resolving. The name of the source file is shown in the tooltip.

# Example:

path: tree/master/docs/extensions
source: metadata.md

# Redirecting to another page

It's sometimes necessary to move documents around in the navigation tree and redirect users from the old URL to the new one. The redirect meta-tag allows to create a redirection from the current document to the address specified in the tag.

For instance, if your document contains:

redirect: /new/url

accessing that document's URL will automatically redirect to /new/url.

### **Overrides**

PAGE TITLE

The page title can be overridden on a per-document basis:

title: Lorem ipsum dolor sit amet

This will set the title tag inside the document head for the current page to the provided value. It will also override the default behavior of Material for MkDocs which appends the site title using a dash as a separator to the page title.

PAGE DESCRIPTION

The page description can also be overridden on a per-document basis:

description: Nullam urna elit, malesuada eget finibus ut, ac tortor.

This will set the metal tag containing the site description inside the document head for the current page to the provided value.

DISQUS

As described in the getting started guide, Disqus can be enabled on a per-document basis:

disqus: your-shortname

Disqus can also be disabled for a specific page by setting it to an empty value:

disqus:

# 2.5 Permalinks

Permalinks are a feature of the Table of Contents extension, which is part of the standard Markdown library. The extension inserts an anchor at the end of each headline, which makes it possible to directly link to a specific section of the document.

# 2.5.1 Configuration

Add the following lines to mkdocs.yml:

```
markdown_extensions:
- toc:
    permalink: true
```

This will add a link containing the paragraph symbol ¶ at the end of each headline (exactly like on the page you're currently viewing), which Material for MkDocs will make appear on hover. In order to change the text of the permalink, a string can be passed, e.g.:

```
markdown_extensions:
- toc:
permalink: Link
```

# 2.5.2 Usage

When enabled, permalinks are inserted automatically.

# 2.6 PyMdown Extensions

PyMdown Extensions is a collection of Markdown extensions that add some great missing features to the standard Markdown library. A compatible version is always included with the theme.

# 2.6.1 Configuration

The following list of extensions that are part of the PyMdown Extensions package are recommended to be used together with Material for MkDocs:

```
markdown_extensions:
  - pymdownx.arithmatex
  - pymdownx.betterem
      smart_enable: all
 - pymdownx.caret
 - pymdownx.critic
  - pymdownx.details
      emoji_index: !!python/name:materialx.emoji.twemoji
     emoji generator:
                       !!python/name:materialx.emoji.to svg
  - pymdownx.inlinehilite
  - pymdownx.magiclink
 - pymdownx.mark
  - pymdownx.smartsymbols
   pymdownx.superfences
 - pymdownx.tasklist:
custom_checkbox: true
   pymdownx.tabbed
   pymdownx.tilde
```

# 2.6.2 Usage

#### Arithmatex MathJax

Arithmatex integrates Material for MkDocs with MathJax which parses block-style and inline equations written in TeX markup and outputs them in mathematical notation. See this thread for a short introduction and quick reference on how to write equations in TeX syntax.

Besides activating the extension in the <code>mkdocs.yml</code>, the MathJax JavaScript runtime needs to be included. This can be done with additional JavaScript:

```
extra_javascript:
- https://cdnjs.cloudflare.com/ajax/libs/mathjax/2.7.0/MathJax.js?config=TeX-MML-AM_CHTML
```

If you want to override the default MathJax configuration, you can do this by adding another JavaScript file **before** the MathJax runtime which contains the MathJax configuration, e.g.:

```
window.MathJax = {
  tex2jax: {
    intineMath: [ "\\(","\\)"] ],
    displayMath: [ ["\\(","\\]"] ]
},

TeX: {
    TagSide: "right",
    TagIndent: ".8em",
    MuttLineWidth: "85%",
    equationNumbers: {
      autoNumber: "AMS",
    },
    unicode: {
      fonts: "STIXGeneral, 'Arial Unicode MS'"
    }
},
displayAlign: "left",
    showProcessingMessages: false,
    messageStyle: "none"
};
```

Then, add the following lines to mkdocs.yml:

### BLOCKS

Blocks are enclosed in \$\$...\$\$ which are placed on separate lines.

Example:

```
$$ \frac{n!}{k!(n-k)!} = \binom{n}{k} $$
```

Result:

 $\frac{n!}{k!(n-k)!} = \binom{n}{k}$ 

INLINE

Inline equations must be enclosed in \$...\$:

Example:

```
Lorem ipsum dolor sit amet: p(x|y) = \frac{p(y|x)p(x)}{p(y)}
```

Result:

Lorem ipsum dolor sit amet:  $p(x|y) = \frac{p(y|x)p(x)}{p(y)}$ 

### BetterEm

BetterEm improves the handling of emphasis markup (**bold** and *italic*) within Markdown by providing a more sophisticated parser for better detecting start and end tokens. Read the documentation for usage notes.

# Caret

Caret makes it possible to highlight <u>inserted text</u>. The portion of text that should be marked as added must be enclosed in two carets ^^...^^.

#### Critic

Critic implements Critic Markup, a Markdown extension that enables the tracking of changes (additions, deletions and comments) on documents. During compilation of the Markdown document, changes can be rendered (default), accepted or rejected.

Text can be deleted and replacement text added. This can also be combined into one a single operation. Highlighting is also possible /\* and comments can be added inline \*/.

Formatting can also be applied to blocks, by putting the opening and closing tags on separate lines and adding new lines between the tags and the content.

#### **Details**

Details adds collapsible Admonition blocks which can contain arbitrary content using the HTML5 details and summary tags. Additionally, all Admonition qualifiers can be used, e.g. note, question, warning etc.:



How many Prolog programmers does it take to change a lightbulb?

Yes.

# Emoji 🎉

Emoji adds the ability to insert, well, emojis! 😜

By default, Emoji uses JoyPixles' emoji under the former name EmojiOne. Recent versions of the extension lock support to an older version (2.2.7) due to JoyPixels' newer, less permissible licenses included in later releases. This restricts support to Unicode 9. To get the latest support for the current Unicode version, you can use Twemoji instead which has a much more permissible license. Simply override the default emoji index being used:

```
markdown_extensions:
    pymdownx.emoji:
    emoji_index: !!python/name:pymdownx.emoji.twemoji
    emoji_generator: !!python/name:pymdownx.emoji.to_svg
```

To view all the available short names and emoji available, see Emoji's documentation on your chosen index which includes links to the files containing the short names and emoji associated with each supported index.

### Legal disclaimer

Material has no affiliation with JoyPixles or Twemoji, both of which are licensed under CC BY 4.0. When including images or CSS from either provider, please read their licenses to ensure proper attribution: EmojiOne or Twemoji.

#### Icons 🦀

In addition, you can embed the Material Design icons, Fontawesome icons and GitHub's Octicons directly from Markdown by using Material for MkDocs's custom emoji index. It extends the Twemoji index with new short names that access any of the included icons. To use the custom index, you need to use materialx.emoji instead of pymdownx.emoji:

```
markdown_extensions:
    pymdownx.emoji:
    emoji_index: !!python/name:materialx.emoji.twemoji
    emoji_generator: !!python/name:materialx.emoji.to_svg
```

# Example:

```
* :material-account-circle: – we can use Material Design icons
* :fontawesome-regular-laugh-wink: – we can also use FontAwesome icons
* :octicons-octoface: – that's not all, we can also use GitHub's Octicons
```

### Result:

- - we can use Material Design icons
- - we can also use FontAwesome icons
- :octicons-octoface: that's not all, we can also use GitHub's Octicons

### InlineHilite

InlineHilite adds support for inline code highlighting. It's useful for short snippets included within body copy, e.g. var test = 0; and can be activated by prefixing inline code with a shebang and language identifier, e.g. #!js.

# MagicLink

MagicLink detects links in Markdown and auto-generates the necessary markup, so no special syntax is required. It auto-links http[s]:// and ftp:// links, as well as references to email addresses.

### Mark

Mark adds the ability to highlight text like it was marked with a text marker. The portion of text that should be highlighted must be enclosed in two equal signs ==...=.

# SmartSymbols

SmartSymbols converts markup for special characters into their corresponding symbols, e.g. arrows  $(\leftarrow, \rightarrow, \leftrightarrow)$ , trademark and copyright symbols  $(©, ^{\text{\tiny TM}}, ^{©})$  and fractions  $(\frac{1}{2}, \frac{1}{4}, ...)$ .

### **SuperFences**

SuperFences provides the ability to nest code blocks under blockquotes, lists and other block elements, which the Fenced Code Blocks extension from the standard Markdown library doesn't parse correctly.

SuperFences does also allow grouping code blocks with tabs.

### Tabbed

Tabbed adds support for creating tabbed groups of Markdown content.

### Example:

## Result:

Fruit List	
• <b>ば</b> Apple • <b>&gt;</b> Banana • <b>③</b> Kiwi	
Fruit Table	
Fruit	Color
<b>ő</b> Apple	Red
	Yellow
Kiwi	Green

### **Tasklist**

Tasklist adds support for styled checkbox lists. This is useful for keeping track of tasks and showing what has been done and has yet to be done. Checkbox lists are like regular lists, but prefixed with [ ] for empty or [x] for filled checkboxes.

# Example:

\* [x] Lorem ipsum dolor sit amet, consectetur adipiscing elit
\* [x] Nulla lobortis egestas semper
\* [x] Curabitur elit nibh, euismod et ullamcorper at, iaculis feugiat est
\* [] Vestibulum convallis sit amet nisi a tincidunt
\* [x] In hac habitasse platea dictumst
\* [x] In scelerisque nibh non dolor mollis congue sed et metus
\* [x] Sed egestas felis quis elit dapibus, ac aliquet turpis mattis
\* [] Praesent sed risus massa
\* [] Aenean pretium efficitur erat, donec pharetra, ligula non scelerisque
\* [] Nulla vel eros venenatis, imperdiet enim id, faucibus nisi

#### Result:

- ✓ Lorem ipsum dolor sit amet, consectetur adipiscing elit
- ✓ Nulla lobortis egestas semper
- Curabitur elit nibh, euismod et ullamcorper at, iaculis feugiat est
- Vestibulum convallis sit amet nisi a tincidunt
  - ✓ In hac habitasse platea dictumst
  - ✓ In scelerisque nibh non dolor mollis congue sed et metus
  - Sed egestas felis quis elit dapibus, ac aliquet turpis mattis
  - Praesent sed risus massa
- Aenean pretium efficitur erat, donec pharetra, ligula non scelerisque
- Nulla vel eros venenatis, imperdiet enim id, faucibus nisi

### Tilde

Tilde provides an easy way to strike through cross out text. The portion of text that should be erased must be enclosed in two tildes ~...~ and the extension will take care of the rest.

# 3. Plugins

# 3.1 Search

The built-in search plugin provides client-side search inside the browser and is implemented using lunr.js which includes stemmers for the English language by default, while stemmers for other languages are included with lunrlanguages, both of which are integrated with this theme.



#### Make search work offline

While search will not work for the file:// protocol, as web workers and the use of XMLHTTPRequest are both blocked by modern browsers for security reasons, the localsearch plugin and @squidfunk's iframe-worker polyfill add support for cases where this is a mandatory requirement, e.g., for offline use.

# 3.1.1 Installation

The search plugin is a built-in plugin, and thus doesn't need to be installed.

# 3.1.2 Configuration

Add the following lines to mkdocs.yml:

```
plugins:
```

# Language

- search

Default: best match for theme. Language, automatically set

Material for MkDocs selects the (best-)matching stemmer for the given theme language. Multilingual search can be enabled in mkdocs.yml by explicitly defining the search language(s):

```
plugins:
```

The following language codes are supported:

- ar / Arabic
- · da / Danish
- · du / Dutch
- en / English
- fi / Finnish
- fr / French
- de / German
- hu / Hungarian
- it / Italian
- ja / Japanese

- no / Norwegian
- pt / Portuguese
- ro / Romanian
- ru / Russian
- es / Spanish
- sv / Swedish
- th / Thai
- tr / Turkish
- vi / Vietnamese

# A Only specify the languages you really need

Be aware that including support for other languages increases the general JavaScript payload by around 20kb (before gzip) and by another 15-30kb per language.

### Tokenization

Default: [\s\-]+

The separator for tokenization can be customized which makes it possible to index parts of words that are separated by - or .:

```
plugins:
    search:
    separator: '[\s\-\.]+'
```

# Prebuilding

Default: false

MkDocs can generate a prebuilt index of all pages during build time, which provides performance improvements at the cost of more bandwidth. This may be beneficial for large documentation projects that are served with appropriate HTTP headers (e.g. Content-Encoding: gzip).

Material for MkDocs 5 finally brings experimental support for prebuilt indexes which can be enabled by adding the following lines to <code>mkdocs.yml</code>:

```
plugins:
- search:
prebuild_index: true
```

# 3.1.3 Usage

When enabled, a search bar is shown in the header.

# 3.2 Minification

The mkdocs-minify-plugin will minify all \*.html files generated by mkdocs build in a post-processing step, stripping all unnecessary characters to reduce the payload served to the client.



# Bundled with the official Docker image

This plugin is already installed for your convenience when you use the official Docker image, so the installation step can be skipped. Read the getting started guide to get up and running with Docker.

# 3.2.1 Installation

Install the plugin using pip:

pip install mkdocs-minify-plugin

# 3.2.2 Configuration

Add the following lines to mkdocs.yml:

```
- search # necessary for search to work
- minify:
    minify_html: true
```

# 3.2.3 Usage

When enabled, all \*.html will be minified automatically.

# 3.3 Revision date

The mkdocs-git-revision-date-localized-plugin will add the date on which a Markdown file was last updated at the bottom of each page.



### Bundled with the official Docker image

This plugin is already installed for your convenience when you use the official Docker image, so the installation step can be skipped. Read the getting started guide to get up and running with Docker.



# Requirements

The date is extracted at the time of the build, so mkdocs build must be triggered from within a git repository.

# 3.3.1 Installation

Install the plugin using pip:

pip install mkdocs-git-revision-date-localized-plugin

# 3.3.2 Configuration

Add the following lines to mkdocs.yml:

```
plugins:
   search # necessary for search to work
   git-revision-date-localized
```

Note that the date is printed according to the locale which is determined through the theme language that was set in mkdocs.yml.

# Language

The language (i.e. locale) is deduced from the theme. Language option.

### **Format**

Default: date

To change the date format, set the type parameter to one of date, datetime, iso\_date, iso\_datetime or timeago, e.g.:

```
plugins:
   search # necessary for search to work
  - git-revision-date-localized:
     type: date
```

The following formats are supported:

```
28 November, 2019 # type: date
28 November, 2019 13:57:28 # type: datetime
2019-11-28 # type: iso_date
2019-11-28 13:57:26 # type: iso_datetime
20 hours ago # type: timeago
```

# 3.3.3 Usage

When enabled, the respective date is automatically added at the bottom of each page, e.g.:

Last updated: 28 November, 2019

# 3.4 Awesome pages

The mkdocs-awesome-pages-plugin omits the need to specify all pages in the nav entry of mkdocs.yml and gives you control over page visibility, titles and order on a directory level.



### Bundled with the official Docker image

This plugin is already installed for your convenience when you use the official Docker image, so the installation step can be skipped. Read the getting started guide to get up and running with Docker.

### 3.4.1 Installation

Install the plugin using pip:

pip install mkdocs-awesome-pages-plugin

# 3.4.2 Configuration

Add the following lines to mkdocs.yml:

```
search # necessary for search to work
awesome-pages
```

# 3.4.3 Usage

If the nav entry in mkdocs.yml is omitted, MkDocs will automatically include all pages in a specific order. This plugin allows for more fine-grained control on a per-directory basis. In order to configure behavior for a specific directory, create a YAML file named .pages in it and set one of the following options.

# Setting a directory title

The directory title, which is shown as part of the navigation, can be set with:

```
title: Lorem ipsum dolor sit amet
```

# Changing the order of pages

The order of pages and subsections can be configured with:

```
arrange:
   page-1.md
   page-2.md
   subdirectory
```

# Excluding a directory

A directory can be hidden (i.e. excluded) with:

hide: true

# Collapsing single-page directories

Directories which contain a single page can be collapsed with:

collapse: true

# 4. Releases

# 4.1 Upgrading to 5.x

# 4.1.1 Highlights

- Reactive architecture try app.dialog\$.next("Hi!") in the console
- Instant loading make Material behave like a Single Page Application
- Improved CSS customization with CSS variables set your brand's colors
- Improved CSS resilience, e.g. proper sidebar locking for customized headers
- Improved icon integration and configuration now including over 5k icons
- · Added possibility to use any icon for logo, repository and social links
- Search UI does not freeze anymore (moved to web worker)
- Search index built only once when using instant loading
- · Improved extensible keyboard handling
- Support for prebuilt search indexes
- Support for displaying stars and forks for GitLab repositories
- · Support for scroll snapping of sidebars and search results
- Reduced HTML and CSS footprint due to deprecation of Internet Explorer support
- Slight facelifting of some UI elements (Admonitions, tables, ...)

# 4.1.2 How to upgrade

# Changes to mkdocs.yml

Following is a list of changes that need to be made to mkdocs.yml. Note that you only have to adjust the value if you defined it, so if your configuration does not contain the key, you can skip it.

### THEME. FEATURE

Optional features like tabs and instant loading are now implemented as flags and can be enabled by listing them in mkdocs.yml under theme.features:



#### THEME.LOGO.ICON

The logo icon configuration was centralized under theme.icon.logo and can now be set to any of the icons bundled with the theme:

```
theme:
    icon:
    logo: material/cloud

4.x

theme:
    logo:
    icon: cloud
```

#### EXTRA.REPO\_ICON

The repo icon configuration was centralized under theme.icon.repo and can now be set to any of the icons bundled with the theme:

```
theme:
icon:
repo: fontawesome/brands/gitlab

4.x

extra:
repo_icon: gitlab
```

#### EXTRA. SEARCH.\*

Search is now configured as part of the plugin options. Note that the search languages must now be listed as an array of strings and the tokenizer was renamed to separator:

#### EXTRA.SOCIAL.\*

Social links stayed in the same place, but the type key was renamed to icon in order to match the new way of specifying which icon to be used:

```
extra:
social:
- icon: fontawesome/brands/github-alt
link: https://github.com/squidfunk

4.x
```

```
extra:
social:
- type: github
link: https://github.com/squidfunk
```

# Changes to \*.html files

The templates have undergone a set of changes to make them future-proof. If you've used theme extension to override a block or template, make sure that it matches the new structure:

- If you've overridden a **block**, check base.html for potential changes
- If you've overridden a **template**, check the respective \*.html file for potential changes

BASE.HTML

```
@@ -2,7 +2,6 @@
   This file was automatically generated - do not edit
 {% import "partials/language.html" as lang with context %}
-{% set feature = config.theme.feature %}
 {% set palette = config.theme.palette %}
 {% set font = config.theme.font %}
 <!doctype html>
        {% elif config.site author %}
           <meta name="author" content="{{ config.site_author }}">
        {% endif %}
        {% for key in [
          "clipboard.copy",
         "clipboard.copied",
          "search.language"
          "search.pipeline.stopwords".
          "search.pipeline.trimmer",
          "search.result.none"
          "search.result.one"
          "search.result.other"
          "search.tokenizer"
       1 %}
          <meta name="lang:{{ key }}" content="{{ lang.t(key) }}">
        {% endfor %}
        <!ul></l></l></l><
      {% endblock %}
@ -56,9
        {% endif %}
      {% endblock %}
      {% block styles %}
       "> block styles %;
-link rel="stylesheet" href="{{ 'assets/stylesheets/application.*****.css' | url }}">
-link rel="stylesheet" href="{{ 'assets/stylesheets/main.*****.min.css' | url }}">
        {% if palette.primary or palette.accent %}
         <!iink rel="stylesheet" href="{{ 'assets/stylesheets/application-palette.*****.css' | url }}">
!ink rel="stylesheet" href="{{ 'assets/stylesheets/palette.******.min.css' | url }}">
        {% endif %}
        {% if palette.primary %}
          {% import "partials/palette.html" as map %}
@@ -69,20 +55,1
        {% endif %}
      {% endblock %}
      {% block libs %}
        <script src="{{ 'assets/javascripts/modernizr.*******.js' | url }}"></script>
      {% endblock %}
      {% block fonts %}
        {% if font != false %}
           <link href="https://fonts.gstatic.com" rel="preconnect" crossorigin>

             }}&display=fallback">
          <style>body, input{font-family:"{{ font.code }}","Helvetica Neue", Helvetica, Arial, sans-serif}code, kbd, pre{font-family:"{{ font.code }}","Courier New", Courier, monospace}</style>
        {% endif %}
      {% endblock %}
     k rel="stylesheet" href="{{ 'assets/fonts/material-icons.css' | url }}">
      {% if config.extra.manifest %
         <link rel="manifest" href="{{ config.extra.manifest | url }}" crossorigin="use-credentials">
      {% endif %}
      {% endblock %}
      {% block extrahead %}{% endblock %}
    </head>
+ {% set direction = config.theme.direction | default(lang.t('direction')) %}
   {% if palette.primary or palette.accent %}
    {% set primary = palette.primary | replace(" ", "-") | lower %}
{% set accent = palette.accent | replace(" ", "-") | lower %}
<body dir="{{ lang.t('direction') }}" data-md-color-primary="{{ primary }}" data-md-color-accent="{{ accent }}">
    <body dir="{{ direction }}" data-md-color-primary="{{ primary }}" data-md-color-accent="{{ accent }}"</pre>
   {% else %}
    <body dir="{{ lang.t('direction') }}">
    <body dir="{{ direction }}">
   {% endif %}
     <svg class="md-svg">
          {% set platform = config.extra.repo_icon or config.repo_url %}
          {% if "github" in platform %}
{% include "assets/images/icons/github.f0b8504a.svg" %}
          {% elif "gitlab" in platform %}
            {% include "assets/images/icons/gitlab.6dd19c00.svg" %}
          {% elif "bitbucket" in platform %}
            {% include "assets/images/icons/bitbucket.1b09e088.svg" %}
          {% endif %}
       </defs>
     </svg>
    '--
'cinput class="md-toggle" data-md-toggle="drawer" type="checkbox" id="__drawer" autocomplete="off">
'cinput class="md-toggle" data-md-toggle="search" type="checkbox" id="__search" autocomplete="off">
'clabel class="md-overlay" data-md-component="overlay" for="__drawer"></label>
    <label class="md-overlay" for="__drawer"></label>
     <div data-md-component="skip">
```

```
{% if page.toc | first is defined %}
         {% set skip = page.toc | first %}
<a href="{{ skip.url | url }}" class="md-skip">
          {{ lang.t('skip.link.title') }}
         </a>
       {% endif %}
    <div data-md-component="announce">
       {% if self.announce() %}
         <aside class="md-announce">
           </div>
         </aside>
      {% endif %}
     </div>
     {% block header %}
       {% include "partials/header.html" %}
     {% endblock %}
     <div class="md-container">
     <div class="md-container" data-md-component="container">
       {% block hero %}
         {% if page and page.meta and page.meta.hero %}
            {% include "partials/hero.html" with context %}
         {% endif %}
       {% endblock %}
       {% if feature.tabs %}
         {% include "partials/tabs.html" %}
       {% endif %}
       {% block tabs %}
         {% if "tabs" in config.theme.features %}
           {% include "partials/tabs.html" %}
         {% endif %}
       {% endblock %}
       <main class="md-main" role="main">
       <div class="md-main__inner md-grid">
            {% block site_nav %}
              {% if nav %}
                <div class="md-sidebar md-sidebar--primary" data-md-component="navigation">
@ -160,41 +141,2
              <article class="md-content__inner md-typeset">
               {% block content %}
                   {% if page.edit_url %}
                    a href="{{ page.edit_url }}" title="{{ lang.t('edit.link.title') }}" class="md-icon md-content_icon"></a>
<a href="{{ page.edit_url }}" title="{{ lang.t('edit.link.title') }}" class="md-content_button md-icon">
                      {% include ".icons/material/pencil.svg" %}
                  </a>
{% endif %}
                  {% block source %}
                    {% if page and page.meta and page.meta.source %}
                       {% include "partials/source-link.html" %}
                    {% endif %}
                   {% endblock %}
                   {% if not "\x3ch1" in page.content %}
                  <h1>{{ page.title | default(config.site_name, true)}}</h1>
{% endif %}
                   {{ page.content }}
                  {% block source %}
{% block source %}
{% if page and page.meta and page.meta.source %}
<h2 id="__source">{{ lang.t("meta.source") }}</h2>
                      {% set repo = config.repo_url %}
{% if repo | last == "/" %}
{% set repo = repo[:-1] %}
                      {% endif %}
                      {% set path = page.meta.path | default([""]) %}
{% set file = page.meta.source %}
<a href=""{{ [repo, path, file] | join('/') }}" title=""{{ file }}" class="md-source-file">
                        {{ file }}
                      </a>
                    {% endif %}
                  {% endblock %}
                  {% if page and page.meta %}
    {% if page.meta.git_revision_date_localized or
                           page.meta.revision_date
                   %}
                      {% include "partials/source-date.html" %}
                  {% if page and page.meta and (
                         page.meta.git_revision_date_localized or
                         page.meta.revision_date
                    {% set label = lang.t("source.revision.date") %}
                     <hr>
                    <div class="md-source-date">
                      <small>
                        {% if page.meta.git_revision_date_localized %}
                         {{ label }}: {{ page.meta.git_revision_date_localized }}
{% elif page.meta.revision_date %}
                           {{ label }}: {{ page.meta.revision_date }}
                        {% endif %}
                       </small>
```

```
</div>
               {% endif %}
             {% endblock %}
             {% block disqus %}
@@ -208,29 +174.35
       {% include "partials/footer.html" %}
      {% endblock %}
    </div>
    {% if language != "en" %}
            {% if Language = "ja" %}
<script src="{{ (path ~ 'tinyseg.js') | url }}"></script>
             {% endif %}
            {% endif %}
          {% endfor %}
         {% endif %}
{% endif %}
      <script>app.initialize({version:"{{ mkdocs_version }}",url:{base:"{{ base_url }}"}})</script>
      <script src="{{ 'assets/javascripts/vendor.*****.min.js' | url }}"></script>
<script src="{{ 'assets/javascripts/bundle.******.min.js' | url }}"></script>
      {%- set translations = {} -%}
      {%- for key in [
       "clipboard.copy",
"clipboard.copied",
        "search.config.lang"
        "search.config.pipeline",
       "search.config.separator",
"search.result.placeholder",
        "search.result.none",
       "search.result.one",
        "search.result.other'
      {% set _ = translations.update({ key: lang.t(key) }) -%}
{%- endfor -%}
<script id="__lang" type="application/json">
       {{- translations | tojson -}}
      </script>
      {% block config %}{% endblock %}
       app = initialize({
  base: "{{ base_url }}",
  features: {{ config.theme.features | tojson }},
         search: Object.assign({
         worker: "{{ 'assets/javascripts/worker/search.******.min.js' | url }}"
}, typeof search !== "undefined" && search)
      </script>
      {% endfor %}
```

#### PARTIALS/FOOTER.HTML

```
@@ -5.34 +5.34 @@
     <div class="md-footer-nav">
      <nav class="md-footer-nav__inner md-grid">
       <nav class="md-footer-nav__inner md-grid" aria-label="{{ lang.t('footer.title') }}">
         {% if page.previous_page %}
<a href="{{ page.previous_page.url | url }}" title="{{ page.previous_page.title | striptags }}" class="md-flex md-footer-nav__link md-footer-nav__link--prev" rel="prev">
             <div class="md-flex__cell md-flex__cell--shrink">
          <i class="md-icon md-icon-arrow-back md-footer-nav_button"></i>
<a href="{{ page.previous_page.url | url }}" title="{{ page.previous_page.title | striptags }}" class="md-footer-nav_link md-footer-nav_link--prev" rel="prev">
<div class="md-footer-nav_button md-icon">
               {% include ".icons/material/arrow-left.svg" %}
              </div>
              <div class="md-flex_cell md-flex_cell--stretch md-footer-nav_title">
               <span class="md-flex_ellipsis">
             <div class="md-footer-nav_title">
  <div class="md-ellipsis">
                  <span class="md-footer-nav__direction">
                    {{ lang.t("footer.previous") }}
                  </span>
                  {{ page.previous_page.title }}
              </span>
               </div>
              </div>
         {% endif %}
         {% if page.next_page %}
    <a href="{{ page.next_page.url | url }}" title="{{ page.next_page.title | striptags }}" class="md-flex md-footer-nav__link md-footer-nav__link--next" rel="next">
             <div class="md-flex_cell md-flex_cell--stretch md-footer-nav_title">
           <span class="md-flex_ellipsis">
<a href="{{ page.next_page.url | url }}" title="{{ page.next_page.title | striptags }}" class="md-footer-nav_link md-footer-nav_link--next" rel="next">
              {{ lang.t("footer.next") }}
                  {{ page.next_page.title }}
         </span>
               </div>
              </div>
             <div class="md-flex__cell md-flex__cell--shrink">
               <i class="md-icon md-icon--arrow-forward md-footer-nav__button"></i>
              <div class="md-footer-nav_button md-icon">
              {% include ".icons/material/arrow-right.svg" %} </div>
            </a>
         {% endif %}
```

PARTIALS/HEADER.HTML

```
@@ -2,51 +2,43 @@
   This file was automatically generated - do not edit
 <header class="md-header" data-md-component="header">
- <nav class="md-header-nav md-grid"
    <div class="md-flex">
       <div class="md-flex__cell md-flex__cell--shrink">
          <a href="{{ config.site_unt | default(nav.homepage.url, true) | url }}" title="{{ config.site_name }}" aria-label="{{ config.site_name }}" class="md-header-nav_button md-</pre>
logo">
            {% if config.theme.logo.icon %}
               <i class="md-icon">{{ config.theme.logo.icon }}</i>
            {% else %}
              <img alt="logo" src="{{ config.theme.logo | url }}" width="24" height="24">
            {% endif %}
          </a>
       </div>
       <div class="md-flex cell md-flex cell--shrink">
          <label class="md-icon md-icon--menu md-header-nav__button" for="__drawer"></label>
       </div>
       <div class="md-flex cell md-flex cell--stretch">
          <div class="md-flex_ellipsis md-header-nav_title" data-md-component="title">
            {% if config.site_name == page.title %}
   {{ config.site_name }}
            {% else %}
              <span class="md-header-nav__topic">
                {{ config.site_name }}
              </span>
              <span class="md-header-nav__topic">
                {% if page and page.meta and page.meta.title %}
                   {{ page.meta.title }}
                {% else %}
                   {{ page.title }}
               {% endif %}
              </span>
            {% endif %}
+ <nav class="md-header-nav md-grid" aria-label="{{ lang.t('header.title') }}">
+ <a href="{{ config.site_url | default(nav.homepage.url, true) | url }}" title="{{ config.site_name }}" class="md-header-nav_button md-logo" aria-label="{{ config.site_name }}">
+ {% include "partials/logo.html" %}
     <label class="md-header-nav_button md-icon" for="__drawer">
{% include ".icons/material/menu" ~ ".svg" %}
     <div class="md-header-nav__title" data-md-component="header-title">
       {% if config.site_name == page.title %}
<div class="md-header-nav_ellipsis md-ellipsis">
           {{ config.site_name }}
          </div>
       </div>
        <div class="md-flex_cell md-flex_cell--shrink">
         {% if "search" in config["plugins"] %}
    <label class="md-icon md-icon--search md-header-nav button" for=" search"></label>
            {% include "partials/search.html" %}
          {% endif %}
       </div>
        {% if config.repo_url %}
          <div class="md-flex_cell md-flex_cell--shrink">
           <div class="md-header-nav__source">
    {% include "partials/source.html" %}
            </div>
       {% else %}
          <div class="md-header-nav__ellipsis">
    <span class="md-header-nav__topic md-ellipsis">
              {{ config.site_name }}
            </span>
            <span class="md-header-nav_topic md-ellipsis">
              {% if page and page.meta and page.meta.title %}
                 {{ page.meta.title }}
              {% else %}
                {{ page.title }}
              {% endif %}
           </span>
          </div>
        {% endif %}
     </div>
{% if "search" in config["plugins"] %}
<label class="md-header-nav_button md-icon" for="__search">
          {% include ".icons/material/magnify.svg" %}
       </label>
       {% include "partials/search.html" %}
      {% endif %}
      {% if config.repo_url %}
       <div class="md-header-nav source">
         {% include "partials/source.html" %}
       </div>
+ {% endif %}
    </nav>
 </header>
```

#### PARTIALS/HERO.HTML

```
@@ -1,9 +1,8 @@
{#-
This file was automatically generated - do not edit
-#}
-{% set feature = config.theme.feature %}
{% set class = "md-hero" %}
-{% if not feature.tabs %}
+{% if "tabs" not in config.theme.features %}
{% set class = "md-hero md-hero--expand" %}
{% endif %}
<div class="{{ class }}" data-md-component="hero">
```

#### PARTIALS/LANGUAGE.HTML

#### PARTIALS/LOGO.HTML

```
@@ -0.0 +1.9 @@
+{#+
+ This file was automatically generated - do not edit
+-#}
+{% if config.theme.logo %}
+ <img src="{{ config.theme.logo | url }}" alt="logo">
+{% else %}
+ {% set icon = config.theme.icon.logo or "material/library" %}
+ {% include ".icons/" ~ icon ~ ".svg" %}
+{% endif %}
```

### PARTIALS/NAV-ITEM.HTML

```
@ -14,9 +14,15 @
    {% endif %}
    <label class="md-nav__link" for="{{ path }}">
     {{ nav_item.title }}
<span class="md-nav_icon md-icon">
       {% include ".icons/material/chevron-right.svg" %}
    </span>
    </label>
    <nav class="md-nav" data-md-component="collapsible" data-md-level="{{ level }}">
   {% include ".icons/material/arrow-left.svg" %}
     </span>
       {{ nav_item.title }}
      </label>
      {% if toc | first is defined %}
      <label class="md-nav__link md-nav__link--active" for="__toc">
       {{ nav_item.title }}
       <span class="md-nav__icon md-icon">
         {% include ".icons/material/table-of-contents.svg" %}
      </span>
     </label>
    <a href="{{ nav_item.url | url }}" title="{{ nav_item.title | striptags }}" class="md-nav__link md-nav__link--active">
```

#### PARTIALS/NAV.HTML

```
{#-
This file was automatically generated - do not edit
-#}
-*nav class="md-nav md-nav--primary" data-md-level="0">
- <label class="md-nav_title md-nav_title--site" for="_drawer">
- <a href="{{ config.site_url | default(nav.homepage.url, true) | url }}" title="{{ config.site_name }}" class="md-nav__button md-logo">
- {% if config.theme.logo.icon %}
- <i class="md-icon">{{ config.theme.logo.icon }}</a>
- <i class="md-inav__button md-logo">
- {% else %}
- <i class="md-nav__button md-logo">
- {% else %}
- <i mg alt="logo" src="{{ config.theme.logo | url }}" width="48" height="48">
- {% endif %}
+ <nav class="md-nav md-nav--primary" aria-label="{{ lang.t('nav.title') }}" data-md-level="0">
+ <label class="md-nav__title" for="__drawer">
+ <a href="{{ config.site_url | default(nav.homepage.url, true) | url }}" title="{{ config.site_name }}" class="md-nav__button md-logo" aria-label="{{ config.site_name }}">
- {% include "partials/logo.html" %}
- </a>
- {{ config.site_name }}
- </a>
- {{ config.site_name }}
- </a>
- {{ label>}
- <a href="logo" src="md-nav__button md-logo" aria-label="{{ config.site_name }}">
- <a href="md-nav__button md-logo" src="md-nav__button md-logo" aria-label="{{ config.site_name }}">
- <a href="md-nav__button md-logo" src="md-nav__button md-logo" aria-label="{ config.site_name }}">
- <a href="md-nav__button md-nav__button md-nav__button m
```

#### PARTIALS/SEARCH.HTML

```
<label class="md-search_overlay" for="__search"></label>
  <div class="md-search__inner" role="search">
  <form class="md-search__form" name="search">
     <input type="text" class="md-search_input" name="query" aria-label="Search" placeholder="{{ lang.t('search.placeholder') }}" autocapitalize="off" autocorrect="off"</pre>
autocorrect="off" autocomplete="off" spellcheck="false" data-md-component="search-query" data-md-state="active"
     {% include ".icons/material/arrow-left.svg" %}
     </label>
     <button type="reset" class="md-icon md-search_icon" data-md-component="reset" tabindex="-1">
      
     <button type="reset" class="md-search_icon md-icon" aria-label="{{ lang.t('search.reset') }}" data-md-component="search-reset" tabindex="-1">
      {% include ".icons/material/close.svg" %}
     </button>
    </form>
    <div class="md-search__output">
     <div class="md-search-result" data-md-component="search-result">
        <div class="md-search-result__meta">
          {{ lang.t("search.result.placeholder") }}
        </div>
```

# PARTIALS/SOCIAL.HTML

#### PARTIALS/SOURCE-DATE.HTML

#### PARTIALS/SOURCE-LINK.HTML

```
@@ -0.0 +1.13 @@
+{#+

+ This file was automatically generated - do not edit
+-#}
+{% import "partials/Language.html" as Lang with context %}
+{% set repo = config.repo_url %}
+{% if repo | Last = "/" %}
+{% set repo = repo[:-1] %}
+{% endif %}
+{% set path = page.meta.path | default([""]) %}
+<a href="{{ [repo, path, page.meta.source] | join('/') }}" title="{{ file }}" class="md-content_button md-icon">
+ {{ Lang.t("meta.source") }}
+{ kinclude ".icons/" ~ config.theme.icon.repo ~ ".svg" %}
+</a>
```

#### PARTIALS/SOURCE.HTML

```
@ -2,24 +2,11 @@
  This file was automatically generated - do not edit
 {% import "partials/language.html" as lang with context %}
-{% set repo_type = "github" %}
-{% set repo_type = "github" %}
-{% elif "gitlab" in platform %}
- {% set repo_type = "gitlab" %}
-{% elif "bitbucket" in platform %}
- {% set repo_type = "bitbucket" %}
-{% else %}
- {% set repo_type = "" %}
-{% endif %}
-`a href="{{ config.repo_url }}" title="{{ lang.t('source.link.title') }}" class="md-source" data-md-source="{{ repo_type }}">
- {% if repo_type %}
- <div class="md-source__icon">
       <svg viewBox="0 0 24 24" width="24" height="24">
         <use xlink:href="#__{{ repo_type }}" width="24" height="24"></use>
       </svg>
     </div>
- {% endif %}
+<a href="{{ config.repo_url }}" title="{{ lang.t('source.link.title') }}" class="md-source">
+ <div class="md-source_icon md-icon">
    {% set icon = config.theme.icon.repo or "fontawesome/brands/git-alt" %}
    {% include ".icons/" ~ icon ~ ".svg" %}
+ </div>
   {{ config.repo_name }}
   </div>
```

#### PARTIALS/TABS-ITEM.HTML

#### PARTIALS/TABS.HTML

```
@@ -5,7 +5,7 @@
{% if page.ancestors | length > 0 %}
    {% set class = "md-tabs md-tabs--active" %}
{% endif %}
--nav class="{{ class }}" data-md-component="tabs">
+<nav class="{{ class }}" aria-label="{{ lang.t('tabs.title') }}" data-md-component="tabs">
    <div class="md-tabs__inner md-grid">

    {% for nav_item in nav %}
```

#### PARTIALS/TOC-ITEM.HTML

#### PARTIALS/TOC.HTML

```
@ -2,35 +2,22 @@
   This file was automatically generated - do not edit
{% import "partials/language.html" as lang with context %}
-<nav class="md-nav md-nav--secondary">
+<nav class="md-nav md-nav--secondary" aria-label="{{ lang.t('toc.title') }}">
   AND CLASS="MU-HAV MU-HAV SECONDARY | (% endif %)

{% endif %}

{label class="md-nav_title" for="_toc">

<span class="md-nav_icon md-icon">

{% include ".icons/material/arrow-left.svg" %}
       </span>
       {{ lang.t("toc.title") }}
     </label>

{% for toc_item in toc %}
         {% include "partials/toc-item.html" %}
       {% endfor %}
{% if page.meta.source and page.meta.source | length > 0 %}
        class="md-nav__item">
          {% endif %}
       {% set disqus = config.extra.disqus %}
       {% if page and page.meta and page.meta.disqus is string %}
       {% set disqus = page.meta.disqus %}
{% endif %}
       {% if not page.is_homepage and disqus %}
        {{ lang.t("meta.comments") }}
        {% endif %}
     {% endif %}
 </nav>
```

# 4.2 Upgrading to 4.x

# 4.2.1 Highlights

Material for MkDocs 4 fixes incorrect layout on Chinese systems. The fix includes a mandatory change of the base font-size from 10px to 20px which means all rem values needed to be updated. Within the theme, px to rem calculation is now encapsulated in a new function called px2rem which is part of the SASS code base.

If you use Material for MkDocs with custom CSS that is based on rem values, note that those values must now be divided by 2. Now, 1.0rem doesn't map to 10px, but 20px. To learn more about the problem and implications, please refer to the issue in which the problem was discovered and fixed.

# 4.2.2 How to upgrade

Changes to mkdocs.yml

None.

Changes to \*.html files

None.

# 4.3 Upgrading

To upgrade to the latest version:

pip install --upgrade mkdocs-material

To inspect the currently installed version:

pip show mkdocs-material

# Changelog

# 5.2.1 \_ May 22, 2020

- Fixed color of links in table headers, e.g. footnotes
- Fixed color scheme not being applied without primary or accent color
- · Fixed hover delay for links inside code blocks

# 5.2.0 \_ May 18, 2020

- Added color schemes implementation + dark mode
- Fixed #1583: Missing option for separate link colors

# **5.1.7** \_ May 16, 2020

- Added keyboard focus support for overflowing code blocks
- Fixed #1696: Infinite loop in some cases when using instant loading

# 5.1.6 \_ May 9, 2020

- Added Burmese translations
- Added general anchor offset solution using scroll-margin-top
- Fixed #1653: Instant loading shouldn't intercept links to \*.html files

# 5.1.5 \_ May 3, 2020

- · Added name attribute for social links to set link title
- Fixed #1623: Allow arbitrary links in social links
- Fixed #1664: Height of iframe is not adjustable
- Fixed #1667: Sidebars are scrolled to bottom on load (bug in Chrome 81+)

## 5.1.4 \_ April 30, 2020

- · Switched to @mdi/svg Material Design icon package
- Fixed #1655: Navigation may disappear after switching viewports
- Fixed #1659: Unnecessary scrollbar for search results on Windows
- Fixed occasional distortions for images with explicit dimensions
- Fixed errors in German translations

# 5.1.3 \_ April 26, 2020

• Fixed overflowing content area after switch to flexbox

# 5.1.2 \_ April 26, 2020

- · Added status information to search observable
- Added status information to search modal
- Removed announcement bar from print media
- Removed media query packing logic due to race conditions
- Fixed #1520: Gracefully disable search on file:// if Worker fails
- Fixed re-submission of query after search is initialized
- Fixed jitter of sidebars on all browsers by switching to sticky

# 5.1.1 \_ April 17, 2020

- · Added new FontAwesome icons
- Fixed #1609: Instant loading doesn't honor target=\_blank
- · Fixed GitHub stars count rounding errors
- Fixed GitLab stars count retrieval

# 5.1.0 \_ April 12, 2020

 $\bullet \ \text{Added support for icons from Markdown through mkdocs-material-extensions}\\$ 

# 5.0.2 \_ April 10, 2020

- · Added CSS source maps to distribution files
- Fixed errors in Chinese (Traditional) translations
- Fixed creation of stale directory on installation from git
- Improved overflow scrolling behavior on iOS (reduced bundle size by 4kb)

# **5.0.1** \_ April 7, 2020

• Fixed syntax error in Spanish translation

## 5.0.0 \_ April 7, 2020

- Reactive architecture try app.dialog\$.next("Hi!") in the console
- Instant loading make Material behave like a Single Page Application
- Improved CSS customization with CSS variables set your brand's colors
- Improved CSS resilience, e.g. proper sidebar locking for customized headers
- Improved icon integration and configuration now including over 5k icons
- · Added possibility to use any icon for logo, repository and social links
- Search UI does not freeze anymore (moved to web worker)
- · Search index built only once when using instant loading
- · Improved extensible keyboard handling
- Support for prebuilt search indexes
- Support for displaying stars and forks for GitLab repositories
- · Support for scroll snapping of sidebars and search results
- Reduced HTML and CSS footprint due to deprecation of Internet Explorer support
- Slight facelifting of some UI elements (Admonitions, tables, ...)

### **4.6.3** \_ February 14, 2020

- Removed optional third-party plugins from requirements.txt
- Updated Docker image to contain all supported third-party plugins

# 4.6.2 \_ February 8, 2020

- · Added Romanian translations
- Fixed #1451: Inconsistent spacing for fenced code blocks

### 4.6.1 \_ February 8, 2020

- Fixed #1324: Metadata author only rendering first character
- Fixed #1393: Set tabindex to 0 for skip to content link
- Fixed code blocks after Markdown 3.2 release
- Fixed errors in Japanese translations
- Improved Google Lighthouse score

### **4.6.0** \_ December 11, 2019

- · Added support for mkdocs-git-revision-date-localized-plugin
- Fixed invalid character in Google Fonts URL

### 4.5.1 \_ December 2, 2019

- Added Thai translations
- $\bullet$  Fixed missing assets in GitHub release  $\mbox{.zip}$  and  $\mbox{.tar.gz}$

## **4.5.0** \_ November 16, 2019

- Fixed #1330: Upgraded EmojiOne to Tweomji due to licensing issues
- Fixed #1339: Temporarily pinned PyMdown and Markdown due to
- Fixed errors in Greek translations
- Improved GitHub statistics retrieval

# 4.4.3 \_ October 3, 2019

- Added Estonian translations
- Fixed removal of copyright banners in minified JavaScript
- Removed unnecessary title attributes from links in table of contents

# **4.4.2** \_ August 27, 2019

- · Added Afrikaans translations
- Fixed broken page title when h1 contained HTML tags
- Improved accessibility for IE users
- Removed unnecessary title attributes from links in navigation

### 4.4.1 \_ August 22, 2019

- · Added support for black as a primary color
- Fixed broken footer bar when h1 contained HTML tags

# **4.4.0** \_ June 15, 2019

- Added Slovenian translations
- Reverted template minification in favor of mkdocs-minify-plugin
- Fixed #1114: Tabs don't reappear when default font-size is smaller than 16

### 4.3.1 \_ May 23, 2019

• Fixed spelling error in Danish translations

### **4.3.0** \_ May 17, 2019

- Added support for changing header through metadata title property
- · Added font-display: swap to Google Font loading logic
- Removed whitespace from templates, saving 4kb ( .7kb gzipped) per request
- Fixed alignment of repository icons on tablet and desktop

### 4.2.0 \_ April 28, 2019

- · Added Norwegian (Nynorsk) translations
- Fixed loss of focus in non-form input elements due to search hotkeys
- Fixed #1067: Search hotkeys not working for mobile/tablet screensize
- Fixed #1068: Search not correctly aligned for tablet screensize

# **4.1.2** \_ April 16, 2019

• Fixed #1072: HTML tags appearing in navigation link titles

### 4.1.1 \_ March 28, 2019

• Fixed minor CSS errors detected during validation

### 4.1.0 \_ March 22, 2019

- Fixed #1023: Search for Asian languages broken after Lunr.js update
- Fixed #1026: contenteditable elements loose focus on hotkeys

### 4.0.2 \_ March 1, 2019

• Fixed #1012: HTML character entities appear in search result titles

### **4.0.1** \_ February 13, 2019

- Fixed #762, #816: Glitch in sidebar when collapsing items
- Fixed #869: Automatically expand details before printing

# 4.0.0 \_ February 13, 2019

- · Added background on hover for table rows
- Removed Google Tag Manager and reverted to Google Analytics
- Removed blocks in partials Jinja doesn't support them
- Fixed #911: Chrome breaks layout if system language is Chinese (BREAKING)
- Fixed #976: Removed FastClick

### 3.3.0 \_ January 29, 2019

- Moved Google Analytics integration into head using Google Tag Manager
- Fixed #972: Unicode slugifier breaks table of contents blur on scroll
- Fixed #974: Additional links in table of contents break blur on scroll

# 3.2.0 \_ December 28, 2018

- · Added support for redirects using metadata refresh
- Fixed #921: Load Google Analytics snippet asynchronously

### 3.1.0 \_ November 17, 2018

- Added support for Progressive Web App Manifest
- Fixed #915: Search bug in Safari (upgraded Lunr.js)

# 3.0.6 \_ October 26, 2018

- Added Taiwanese translations
- Fixed #906: JavaScript code blocks evaluated in search results

# 3.0.5 \_ October 23, 2018

- Added Croatian and Indonesian translations
- Fixed #899: Skip-to-content link invalid from 2<sup>nd</sup> level on
- Fixed #902: Missing URL filter in footer for FontAwesome link

### 3.0.4 \_ September 3, 2018

- Updated Dutch translations
- Fixed #856: Removed preconnect meta tag if Google Fonts are disabled

### 3.0.3 \_ August 7, 2018

• Fixed #841: Additional path levels for extra CSS and JS

### 3.0.2 \_ August 6, 2018

• Fixed #839: Lunr.js stemmer imports incorrect

# 3.0.1 \_ August 5, 2018

• Fixed #838: Search result links incorrect

# 3.0.0 \_ August 5, 2018

- Upgraded MkDocs to 1.0 (BREAKING)
- Upgraded Python in official Docker image to 3.6
- · Added Serbian and Serbo-Croatian translations

### 2.9.4 \_ July 29, 2018

• Fixed build error after MkDocs upgrade

# $\pmb{2.9.3}\,\_\,\text{July 29, 2018}$

- Added link to home for logo in drawer
- Fixed dependency problems between MkDocs and Tornado

# 2.9.2 \_ June 29, 2018

• Added Hindi and Czech translations

# 2.9.1 \_ June 18, 2018

- · Added support for different spellings for theme color
- Fixed #799: Added support for webfont minification in production
- Fixed #800: Added .highlighttable as an alias for .codehilitetable

#### 2.9.0 \_ June 13, 2018

- Added support for theme color on Android
- Fixed #796: Rendering of nested tabbed code blocks

# 2.8.0 \_ June 10, 2018

- · Added support for grouping code blocks with tabs
- Added Material and FontAwesome icon fonts to distribution files (GDPR)
- Added note on compliance with GDPR
- · Added Slovak translations
- Fixed #790: Prefixed id attributes with \_\_ to avoid name clashes

# 2.7.3 \_ April 26, 2018

Added Finnish translations

# 2.7.2 \_ April 9, 2018

· Fixed rendering issue for details on Edge

# 2.7.1 \_ March 21, 2018

- Added Galician translations
- Fixed #730: Scroll chasing error on home page if Disqus is enabled
- Fixed #736: Reset drawer and search upon back button invocation

# 2.7.0 \_ March 6, 2018

- · Added ability to set absolute URL for logo
- Added Hebrew translations

#### 2.6.6 \_ February 22, 2018

- · Added preconnect for Google Fonts for faster loading
- Fixed #710: With tabs sidebar disappears if JavaScript is not available

# 2.6.5 \_ February 22, 2018

• Reverted --dev-addr flag removal from Dockerfile

# 2.6.4 \_ February 21, 2018

- Added Catalan translations
- Fixed incorrect margins for buttons in Firefox and Safari
- Replaced package manager yarn with npm 5.6
- · Reverted GitHub stars rounding method
- Removed --dev-addr flag from Dockerfile for Windows compatibility

# 2.6.3 \_ February 18, 2018

• Added Vietnamese translations

# 2.6.2 \_ February 12, 2018

- Added Arabic translations
- Fixed incorrect rounding of amount of GitHub stars
- Fixed double-layered borders for tables

# 2.6.1 \_ February 11, 2018

- · Added ability to override Disgus integration using metadata
- Fixed #690: Duplicate slashes in source file URLs
- Fixed #696: Active page highlight not working with default palette
- Adjusted German translations

# 2.6.0 \_ February 2, 2018

- Moved default search configuration to default translation (English)
- Added support to automatically set text direction from translation
- Added support to disable search stop word filter in translation
- Added support to disable search trimmer in translation
- · Added Persian translations
- Fixed support for Polish search
- Fixed disappearing GitHub, GitLab and Bitbucket repository icons

# 2.5.5 \_ January 31, 2018

• Added Hungarian translations

# 2.5.4 \_ January 29, 2018

• Fixed #683: gh-deptoy fails inside Docker

#### 2.5.3 \_ January 25, 2018

· Added Ukrainian translations

#### 2.5.2 \_ January 22, 2018

- Added default search language mappings for all localizations
- Fixed #673: Error loading non-existent search language
- Fixed #675: Uncaught reference error when search plugin disabled

# 2.5.1 \_ January 20, 2018

- Fixed permalink for main headline
- Improved missing translation handling with English as a fallback
- Improved accessibility with skip-to-content link

# 2.5.0 \_ January 13, 2018

· Added support for right-to-left languages

#### 2.4.0 \_ January 11, 2018

- · Added focus state for clipboard buttons
- Fixed #400: Search bar steals tab focus
- Fixed search not closing on Enter when result is selected
- Fixed search not closing when losing focus due to Tab
- Fixed collapsed navigation links getting focus
- Fixed outline being cut off on Tab focus of navigation links
- Fixed bug with first search result navigation being ignored
- Removed search result navigation via Tab (use Up and Down)
- · Removed outline resets for links
- Improved general tabbing behavior on desktop

# 2.3.0 \_ January 9, 2018

- Added example (synonym: snippet) style for Admonition
- · Added synonym abstract for summary style for Admonition

# 2.2.6 \_ December 27, 2017

- Added Turkish translations
- Fixed unclickable area below header in case JavaScript is not available

# 2.2.5 \_ December 18, 2017

• Fixed #639: Broken default favicon

#### 2.2.4 \_ December 18, 2017

• Fixed #638: Build breaks with Jinja < 2.9

# 2.2.3 \_ December 13, 2017

- Fixed #630: Admonition sets padding on any last child
- Adjusted Chinese (Traditional) translations

#### 2.2.2 \_ December 8, 2017

- · Added Dutch translations
- · Adjusted targeted link and footnote offsets
- · Simplified Admonition styles and fixed padding bug

# 2.2.1 \_ December 2, 2017

- Fixed #616: Minor styling error with title-only admonition blocks
- Removed border for table of contents and improved spacing

#### 2.2.0 \_ November 22, 2017

- · Added support for hero teaser
- Added Portuguese translations
- Fixed #586: Footnote backref target offset regression
- Fixed #605: Search stemmers not correctly loaded

#### 2.1.1 \_ November 21, 2017

- Replaced deprecated babel-preset-es2015 with babel-preset-env
- · Refactored Gulp build pipeline with Webpack
- · Removed right border on sidebars
- Fixed broken color transition on header

#### 2.1.0 \_ November 19, 2017

- · Added support for white as a primary color
- Added support for sliding site name and title
- Fixed redundant clipboard button when using line numbers on code blocks
- Improved header appearance by making it taller
- Improved tabs appearance
- Improved CSS customizability by leveraging inheritance
- Removed scroll shadows via background-attachment

# 2.0.4 \_ November 5, 2017

• Fixed details not opening with footnote reference

# 2.0.3 \_ November 5, 2017

- Added Japanese translations
- Fixed #540: Jumping to anchor inside details doesn't open it
- Fixed active link colors in footer

### 2.0.2 \_ November 1, 2017

- · Added Russian translations
- Fixed #542: Horizontal scrollbar between 1220px and 1234px
- Fixed #553: Metadata values only rendering first character
- Fixed #558: Flash of unstyled content
- Fixed favicon regression caused by deprecation upstream

#### 2.0.1 \_ October 31, 2017

- · Fixed error when initializing search
- Fixed styles for link to edit the current page
- Fixed styles on nested admonition in details

# 2.0.0 \_ October 31, 2017

- Upgraded MkDocs to 0.17.1 (BREAKING)
- Added support for easier configuration of search tokenizer
- · Added support to disable search
- · Added Korean translations

### 1.12.2 \_ October 26, 2017

· Added Italian, Norwegian, French and Chinese translations

#### 1.12.1 \_ October 22, 2017

- · Added Polish, Swedish and Spanish translations
- Improved downward compatibility with custom partials
- Temporarily pinned MkDocs version within Docker image to 0.16.3
- Fixed #519: Missing theme configuration file

# 1.12.0 \_ October 20, 2017

- Added support for setting language(s) via mkdocs.yml
- · Added support for default localization
- Added German and Danish translations
- Fixed #374: Search bar misalignment on big screens

# 1.11.0 \_ October 19, 2017

- · Added localization to clipboard
- Refactored localization logic

#### 1.10.4 \_ October 18, 2017

- Improved print styles of code blocks
- Improved search UX (don't close on enter if no selection)
- Fixed #495: Vertical scrollbar on short pages

### 1.10.3 \_ October 11, 2017

- Fixed #484: Vertical scrollbar on some MathJax formulas
- Fixed #483: Footnote backref target offset regression

#### 1.10.2 \_ October 6, 2017

• Fixed #468: Sidebar shows scrollbar if content is shorter (in Safari)

# 1.10.1 \_ September 14, 2017

• Fixed #455: Bold code blocks rendered with normal font weight

#### 1.10.0 \_ September 1, 2017

- · Added support to make logo default icon configurable
- Fixed uninitialized overflow scrolling on main pane for iOS
- Fixed error in mobile navigation in case JavaScript is not available
- Fixed incorrect color transition for nested panes in mobile navigation
- Improved checkbox styles for Tasklist from PyMdown Extension package

# 1.9.0 \_ August 29, 2017

- Added info (synonym: todo) style for Admonition
- · Added question (synonym: help, faq) style for Admonition
- Added support for Details from PyMdown Extensions package
- Improved Admonition styles to match Details
- · Improved styles for social links in footer
- Replaced ligatures with Unicode code points to avoid broken layout
- Upgraded PyMdown Extensions package dependency to >= 3.4

# 1.8.1 \_ August 7, 2017

• Fixed #421: Missing pagination for GitHub API

# 1.8.0 \_ August 2, 2017

- Added support for lazy-loading of search results for better performance
- · Added support for customization of search tokenizer/separator
- Fixed #424: Search doesn't handle capital letters anymore
- Fixed #419: Search doesn't work on whole words

# 1.7.5 \_ July 25, 2017

- Fixed #398: Forms broken due to search shortcuts
- Improved search overall user experience
- · Improved search matching and highlighting
- · Improved search accessibility

# 1.7.4 \_ June 21, 2017

- Fixed functional link colors in table of contents for active palette
- Fixed #368: Compatibility issues with IE11

# 1.7.3 \_ June 7, 2017

• Fixed error when setting language to Japanese for site search

# 1.7.2 \_ June 6, 2017

- Fixed offset of search box when repo\_url is not set
- Fixed non-disappearing tooltip

# 1.7.1 \_ June 1, 2017

- Fixed wrong z-index order of header, overlay and drawer
- Fixed wrong offset of targeted footnote back references

# 1.7.0 \_ June 1, 2017

- · Added "copy to clipboard" buttons to code blocks
- · Added support for multilingual site search
- Fixed search term highlighting for non-latin languages

#### 1.6.4 \_ May 24, 2017

• Fixed #337: JavaScript error for GitHub organization URLs

# 1.6.3 \_ May 16, 2017

• Fixed #329: Broken source stats for private or unknown GitHub repos

# 1.6.2 \_ May 15, 2017

- Fixed #316: Fatal error for git clone on Windows
- Fixed #320: Chrome 58 creates double underline for abbr tags
- Fixed #323: Ligatures rendered inside code blocks
- Fixed miscalculated sidebar height due to missing margin collapse
- · Changed deprecated MathJax CDN to Cloudflare

# 1.6.1 \_ April 23, 2017

- Fixed following of active/focused element if search input is focused
- Fixed layer order of search component elements

# 1.6.0 \_ April 22, 2017

- · Added build test for Docker image on Travis
- Added search overlay for better user experience (focus)
- · Added language from localizations to html tag
- Fixed #270: source links broken for absolute URLs
- Fixed missing top spacing for first targeted element in content
- Fixed too small footnote divider when using larger font sizes

#### 1.5.5 \_ April 20, 2017

• Fixed #282: Browser search ( Meta + F ) is hijacked

# 1.5.4 \_ April 8, 2017

- Fixed broken highlighting for two or more search terms
- Fixed missing search results when only a h1 is present
- Fixed unresponsive overlay on Android

# 1.5.3 \_ April 7, 2017

- Fixed deprecated calls for template variables
- Fixed wrong palette color for focused search result
- Fixed JavaScript errors on 404 page
- Fixed missing top spacing on 404 page
- Fixed missing right spacing on overflow of source container

# 1.5.2 \_ April 5, 2017

- Added requirements as explicit dependencies in setup.py
- Fixed non-synchronized transitions in search form

#### 1.5.1 \_ March 30, 2017

- Fixed rendering and offset of targeted footnotes
- Fixed #238: Link on logo is not set to site\_url

#### 1.5.0 \_ March 24, 2017

- · Added support for localization of search placeholder
- · Added keyboard events for quick access of search
- · Added keyboard events for search control
- Added opacity on hover for search buttons
- · Added git hook to skip CI build on non-src changes
- Fixed non-resetting search placeholder when input is cleared
- Fixed error for unescaped parentheses in search term
- Fixed #229: Button to clear search missing
- Fixed #231: Escape key doesn't exit search
- Removed old-style figures from font feature settings

#### 1.4.1 \_ March 16, 2017

• Fixed invalid destructuring attempt on NodeList (in Safari, Edge, IE)

#### 1.4.0 \_ March 16, 2017

- · Added support for grouping searched sections by documents
- · Added support for highlighting of search terms
- · Added support for localization of search results
- Fixed #216: table of contents icon doesn't show if h1 is not present
- Reworked style and layout of search results for better usability

#### 1.3.0 \_ March 11, 2017

- · Added support for page-specific title and description using metadata
- · Added support for linking source files to documentation
- Fixed jitter and offset of sidebar when zooming browser
- · Fixed incorrectly initialized tablet sidebar height
- Fixed regression for #1: GitHub stars break if repo\_url ends with a /
- Fixed undesired white line below copyright footer due to base font scaling
- Fixed issue with whitespace in path for scripts
- Fixed #205: support non-fixed (static) header
- Refactored footnote references for better visibility
- Reduced repaints to a minimum for non-tabs configuration
- Reduced contrast of edit button (slightly)

#### 1.2.0 \_ March 3, 2017

- · Added quote (synonym: cite) style for Admonition
- · Added help message to build pipeline
- Fixed wrong navigation link colors when applying palette
- Fixed #197: Link missing in tabs navigation on deeply nested items
- · Removed unnecessary dev dependencies

#### 1.1.1 \_ February 26, 2017

• Fixed incorrectly displayed nested lists when using tabs

# 1.1.0 \_ February 26, 2017

- · Added tabs navigation feature (optional)
- Added Disgus integration (optional)
- Added a high resolution Favicon with the new logo
- · Added static type checking using Facebook's Flow
- Fixed #173: Dictionary elements have no bottom spacing
- Fixed #175: Tables cannot be set to 100% width
- Fixed race conditions in build related to asset revisioning
- Fixed accidentally re-introduced Permalink on top-level headline
- Fixed alignment of logo in drawer on IE11
- Refactored styles related to tables
- · Refactored and automated Docker build and PyPI release
- Refactored build scripts

# 1.0.5 \_ February 18, 2017

- Fixed #153: Sidebar flows out of constrained area in Chrome 56
- Fixed #159: Footer jitter due to JavaScript if content is short

# 1.0.4 \_ February 16, 2017

- Fixed #142: Documentation build errors if h1 is defined as raw HTML
- Fixed #164: PyPI release does not build and install
- · Fixed offsets of targeted headlines
- Increased sidebar font size by 0.12rem

# 1.0.3 \_ January 22, 2017

- Fixed #117: Table of contents items don't blur on fast scrolling
- Refactored sidebar positioning logic
- Further reduction of repaints

# 1.0.2 \_ January 15, 2017

• Fixed #108: Horizontal scrollbar in content area

#### 1.0.1 \_ January 14, 2017

- Fixed massive repaints happening when scrolling
- Fixed footer back reference positions in case of overflow
- Fixed header logo from showing when the menu icon is rendered
- Changed scrollbar behavior to only show when content overflows

# 1.0.0 \_ January 13, 2017

- Introduced Webpack for more sophisticated JavaScript bundling
- Introduced ESLint and Stylelint for code style checks
- Introduced more accurate Material Design colors and shadows
- Introduced modular scales for harmonic font sizing
- Introduced git-hooks for better development workflow
- Rewrite of CSS using the BEM methodology and SassDoc guidelines
- Rewrite of JavaScript using ES6 and Babel as a transpiler
- Rewrite of Admonition, Permalinks and CodeHilite integration
- Rewrite of the complete typographical system
- Rewrite of Gulp asset pipeline in ES6 and separation of tasks
- Removed Bower as a dependency in favor of NPM
- Removed custom icon build in favor of the Material Design icon set
- Removed \_blank targets on links due to vulnerability: http://bit.ly/1Mk2Rtw
- · Removed unversioned assets from build directory
- · Restructured templates into base templates and partials
- Added build and watch scripts in package.json
- Added support for Metadata and Footnotes Markdown extensions
- Added support for PyMdown Extensions package
- Added support for collapsible sections in navigation
- · Added support for separate table of contents
- Added support for better accessibility through REM-based layout
- Added icons for GitHub, GitLab and BitBucket integrations
- Added more detailed documentation on specimen, extensions etc.
- Added a 404.html error page for deployment on GitHub Pages
- Fixed live reload chain in watch mode when saving a template
- Fixed variable references to work with MkDocs 0.16

#### 0.2.4 \_ June 26, 2016

- Fixed improperly set default favicon
- Fixed #33: Protocol relative URL for webfonts doesn't work with file://
- Fixed #34: IE11 on Windows 7 doesn't honor max-width on main tag
- Fixed #35: Add styling for blockquotes

# 0.2.3 \_ May 16, 2016

- Fixed #25: Highlight inline fenced blocks
- Fixed #26: Better highlighting for keystrokes
- Fixed #30: Suboptimal syntax highlighting for PHP

#### 0.2.2 \_ March 20, 2016

- Fixed #15: Document Pygments dependency for CodeHilite
- Fixed #16: Favicon could not be set through mkdocs.yml
- Fixed #17: Put version into own container for styling
- Fixed #20: Fix rounded borders for tables

#### 0.2.1 \_ March 12, 2016

- Fixed #10: Invisible header after closing search bar with ESC key
- Fixed #13: Table cells don't wrap
- Fixed empty list in table of contents when no headline is defined
- Corrected wrong path for static asset monitoring in Gulpfile.js
- · Set up tracking of site search for Google Analytics

### 0.2.0 \_ February 24, 2016

- Fixed #6: Include multiple color palettes via mkdocs.yml
- Fixed #7: Better colors for links inside admonition notes and warnings
- Fixed #9: Text for prev/next footer navigation should be customizable
- Refactored templates (replaced if / else with modifiers where possible)

# $\boldsymbol{0.1.3}\,{}_{-}\,\mathrm{February}\,21,\,2016$

- Fixed #3: Ordered lists within an unordered list have ::before content
- Fixed #4: Click on Logo/Title without Github-Repository: "None"
- Fixed #5: Page without headlines renders empty list in table of contents
- Moved Modernizr to top to ensure basic usability in IE8

# 0.1.2 \_ February 16, 2016

- Fixed styles for deep navigational hierarchies
- Fixed webfont delivery problem when hosted in subdirectories
- Fixed print styles in mobile/tablet configuration
- Added option to configure fonts in mkdocs.yml with fallbacks
- Changed styles for admonition notes and warnings
- Set download link to latest version if available
- Set up tracking of outgoing links and actions for Google Analytics

# **0.1.1** \_ February 11, 2016

- Fixed #1: GitHub stars don't work if the repo\_url ends with a /
- Updated NPM and Bower dependencies to most recent versions
- Changed footer/copyright link to Material theme to GitHub pages
- Made MkDocs building/serving in build process optional
- Set up continuous integration with Travis

# **0.1.0** \_ February 9, 2016

• Initial release

# 5. Customization

# 5.1 A great starting point

Project documentation is as diverse as the projects themselves and Material for MkDocs is a good starting point for making it look great. However, as you write your documentation, you may reach a point where some small adjustments are necessary to preserve your brand's style.

# 5.2 Adding assets

MkDocs provides several ways to interfere with themes. In order to make a few tweaks to an existing theme, you can just add your stylesheets and JavaScript files to the docs directory.

# 5.2.1 Additional stylesheets

If you want to tweak some colors or change the spacing of certain elements, you can do this in a separate stylesheet. The easiest way is by creating a new stylesheet file in your docs directory:

```
mkdir docs/stylesheets
touch docs/stylesheets/extra.css
```

Then, add the following line to your mkdocs.yml:

```
extra_css:
- stylesheets/extra.css
```

Spin up the development server with mkdocs serve and start typing your changes in your additional stylesheet file – you can see them instantly after saving, as the MkDocs development server supports live reloading.

# 5.2.2 Additional JavaScript

The same is true for additional JavaScript. If you want to integrate another syntax highlighter or add some custom logic to your theme, create a new JavaScript file in your docs directory:

```
mkdir docs/javascripts
touch docs/javascripts/extra.js
```

Then, add the following line to your mkdocs.yml:

```
extra_javascript:
- javascripts/extra.js
```

Further assistance can be found in the MkDocs documentation.

# 5.3 Extending the theme

If you want to alter the HTML source (e.g. add or remove some part), you can extend the theme. MkDocs supports theme extension, an easy way to override parts of a theme without forking and changing the main theme.

# 5.3.1 Setup and theme structure

Reference the Material theme as usual in your mkdocs.yml, and create a new folder for overrides which you reference using custom\_dir:

```
theme:
name: material
custom_dir: overrides
```

# A

#### Theme extension prerequisites

As the  $custom\_dir\ variable\ is\ used\ for\ the\ theme\ extension\ process,\ the\ Material\ for\ MkDocs\ needs\ to\ be\ installed\ via\ pip\ and\ referenced\ with\ the\ name\ parameter\ in\ your\ mkdocs.yml\ .$ 

The structure in the overrides directory must mirror the directory structure of the original theme, as any file in the overrides directory will replace the file with the same name which is part of the original theme. Besides, further assets may also be put in the overrides directory.

The directory layout of the theme is as follows:

```
assets/
\vdash images/
                                     # Images and icons
- iavascrints/
                                     # JavaScrint
    stylesheets/
                                     # Stylesheets
partials/
 — integrations/
                                     # 3rd-party integrations
 ├─ Language/
                                     # Localized languages
    footer.html
                                     # Footer bar
├─ header.html
                                     # Header bar
- hero html
                                     # Hero teaser
 - language.html
                                     # Localized labels
    nav-item.html
                                     # Main navigation item
- nav html
                                     # Main navigation
 - search.html
                                     # Search box
├─ social.html
                                     # Social links
├─ source-date.html
                                     # Last updated date
 --- source-link.html
                                     # Link to source file
 source.html
                                     # Repository information
├─ tabs-item.html
                                     # Tabs navigation item
                                     # Tabs navigation
# Table of contents item
- tabs html
├─ toc-item.html
                                     # Table of contents
404 html
                                    # 404 error page
base.html
                                    # Base template
main.html
                                    # Default page
```

# 5.3.2 Overriding partials

In order to override the footer, we can replace the footer.html partial with our own partial. To do this, create the file partials/footer.html in the overrides directory. MkDocs will now use the new partial when rendering the theme. This can be done with any file.

# 5.3.3 Overriding template blocks

Besides overriding partials, one can also override so called *template blocks*, which are defined inside the templates and wrap specific features. To override a template block, create a main.html inside the overrides directory and define the block, e.g.:

```
{% extends "base.html" %}

{% block htmltitle %}
  <title>Lorem ipsum dolor sit amet</title>
{% endblock %}
```

Material for MkDocs provides the following template blocks:

Block name	Wrapped contents
analytics	Wraps the Google Analytics integration
announce	Wraps the Announcement bar
config	Wraps the JavaScript application config
content	Wraps the main content
disqus	Wraps the disqus integration
extrahead	Empty block to define additional meta tags
fonts	Wraps the webfont definitions
footer	Wraps the footer with navigation and copyright
header	Wraps the fixed header bar
hero	Wraps the hero teaser (if available)
htmltitle	Wraps the <title> tag&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;libs&lt;/td&gt;&lt;td&gt;Wraps the JavaScript libraries (header)&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;scripts&lt;/td&gt;&lt;td&gt;Wraps the JavaScript application (footer)&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;source&lt;/td&gt;&lt;td&gt;Wraps the linked source files&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;site_meta&lt;/td&gt;&lt;td&gt;Wraps the meta tags in the document head&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;site_nav&lt;/td&gt;&lt;td&gt;Wraps the site navigation and table of contents&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;styles&lt;/td&gt;&lt;td&gt;Wraps the stylesheets (also extra sources)&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;tabs&lt;/td&gt;&lt;td&gt;Wraps the tabs navigation (if available)&lt;/td&gt;&lt;/tr&gt;&lt;/tbody&gt;&lt;/table&gt;</title>

For more on this topic refer to the MkDocs documentation

# 5.4 Theme development

Material for MkDocs uses Webpack as a build tool to leverage modern web technologies like TypeScript and SASS. If you want to make more fundamental changes, it may be necessary to make the adjustments directly in the source of the theme and recompile it. This is fairly easy.

# 5.4.1 Environment setup

In order to start development on Material for MkDocs, a Node.js version of at least 12 is required. First, clone the repository:

git clone https://github.com/squidfunk/mkdocs-material

Next, all dependencies need to be installed, which is done with:

```
cd mkdocs-material
pip install -r requirements.txt
npm install
```

# 5.4.2 Development mode

Start the Webpack watchdog with:

npm start

Then, in a second session, start the MkDocs server with:

mkdocs serve

Point your browser to localhost:8000 and you should see this documentation in front of you.

#### A

# Automatically generated files

Never make any changes in the material directory, as the contents of this directory are automatically generated from the src directory and will be overridden when the theme is built.

# 5.4.3 Build process

When you've finished making your changes, you can build the theme by invoking:

npm run build

This triggers the production-level compilation and minification of all stylesheets and JavaScript sources. When the command exits, the final files are located in the material directory. Add the theme\_dir variable pointing to the aforementioned directory in your original mkdocs.yml.

Now you can run mkdocs build and you should see your documentation with your changes to the original theme.

# 6. Data privacy

In itself, Material for MkDocs does not perform any tracking and should adhere to the General Data Protection Regulation (GDPR), but it integrates with some third-party services that may not.

# 6.1 Third-party services

# 6.1.1 Google Fonts

Material for MkDocs makes fonts easily configurable by relying on Google Fonts CDN. Embedding fonts from Google is currently within a gray area as there's no official statement or ruling regarding GDPR compliance and the topic is still actively discussed. If you need to ensure GDPR compliance, you may disable the usage of the Google Font CDN with:

```
theme:
font: false
```

When Google Fonts are disabled, Material for MkDocs will default to **Helvetica Neue** and **Monaco** with their corresponding fall backs, relying on system fonts. You can easily include your own, self-hosted webfont by overriding the fonts block.

# 6.1.2 Google Analytics and Disqus

Material for MkDocs comes with optional Google Analytics and Disqus integrations, both of which must be enabled explicitly.

# 7. Contributing

Interested in contributing to the Material for MkDocs? Want to report a bug? Before you do, please read the following guidelines.

# 7.1 Submission context

# 7.1.1 Got a question or problem?

For quick questions there's no need to open an issue as you can reach us on gitter.im.

# 7.1.2 Found a bug?

If you found a bug in the source code, you can help us by submitting an issue to the issue tracker in our GitHub repository. Even better, you can submit a Pull Request with a fix. However, before doing so, please read the submission guidelines.

# 7.1.3 Missing a feature?

You can request a new feature by submitting an issue to our GitHub Repository. If you would like to implement a new feature, please submit an issue with a proposal for your work first, to be sure that it is of use for everyone, as the Material for MkDocs is highly opinionated. Please consider what kind of change it is:

- For a **major feature**, first open an issue and outline your proposal so that it can be discussed. This will also allow us to better coordinate our efforts, prevent duplication of work, and help you to craft the change so that it is successfully accepted into the project.
- Small features and bugs can be crafted and directly submitted as a Pull Request. However, there is no guarantee that your feature will make it into the master, as it's always a matter of opinion whether if benefits the overall functionality of the project.

# 7.2 Submission guidelines

# 7.2.1 Submitting an issue

Before you submit an issue, please search the issue tracker, maybe an issue for your problem already exists and the discussion might inform you of workarounds readily available.

We want to fix all the issues as soon as possible, but before fixing a bug we need to reproduce and confirm it. In order to reproduce bugs we will systematically ask you to provide a minimal reproduction scenario using the custom issue template. Please stick to the issue template.

Unfortunately we are not able to investigate / fix bugs without a minimal reproduction scenario, so if we don't hear back from you we may close the issue.

# 7.2.2 Submitting a Pull Request (PR)

Search GitHub for an open or closed PR that relates to your submission. You don't want to duplicate effort. If you do not find a related issue or PR, go ahead.

- 1. **Development**: Fork the project, set up the development environment, make your changes in a separate git branch and add descriptive messages to your commits.
- 2. **Build**: Before submitting a pull requests, build the theme. This is a mandatory requirement for your PR to get accepted, as the theme should at all times be installable through GitHub.
- 3. **Pull Request**: After building the theme, commit the compiled output, push your branch to GitHub and send a PR to mkdocs-material:master. If we suggest changes, make the required updates, rebase your branch and push the changes to your GitHub repository, which will automatically update your PR.

After your PR is merged, you can safely delete your branch and pull the changes from the main (upstream) repository.

# 8. License

#### **MIT License**

Copyright © 2016 - 2020 Martin Donath

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.