

# Sphinx

In terminal go to target directory and create folder for code with

```
mkdir foliation-sim
```

Go to that folder.

Create new folder for documentation with

```
mkdir docs
```

Go to that folder.

Create sphinx structure (choose to not have source and build directories to be separate)

```
sphinx-quickstart
```

Open file

```
conf.py
```

Add

```
import os
import sys
sys.path.insert(0, os.path.abspath('.'))
```

and

```
extensions = [
    'sphinx.ext.napoleon', # for numpy docstrings
    'sphinx.ext.autodoc', # automatic documentation creation
    'sphinx.ext.viewcode',
]
```

and change template

```
html_theme = 'sphinx_rtd_theme'
```

It should look like this

```
# Configuration file for the Sphinx documentation builder.
#
# For the full list of built-in configuration values, see the documentation:
# https://www.sphinx-doc.org/en/master/usage/configuration.html

import os
import sys
sys.path.insert(0, os.path.abspath('.'))

# -- Project information -----
# https://www.sphinx-doc.org/en/master/usage/configuration.html#project-information

project = 'foliation-sim'
copyright = '2022, Florian Babisch'
author = 'Florian Babisch'
release = '1.0.0'

# -- General configuration -----
# https://www.sphinx-doc.org/en/master/usage/configuration.html#general-configuration

# add these extensions
extensions = [
    'sphinx.ext.napoleon', # for numpy docstrings
    'sphinx.ext.autodoc', # automatic documentation creation
    'sphinx.ext.viewcode',
]

templates_path = ['_templates']
exclude_patterns = []

# -- Options for HTML output -----
# https://www.sphinx-doc.org/en/master/usage/configuration.html#options-for-html-output

# standard theme is alabasta
html_theme = 'sphinx_rtd_theme'
html_static_path = ['_static']
```

Open index.rst and add `modules` below : `caption: contents:` , it should look like this

```
.. foliation-sim documentation master file, created by
   sphinx-quickstart on Sun Sep  4 17:01:27 2022.
```

You can adapt this file completely to your liking, but it should at least contain the root ``toctree`` directive.

Welcome to foliation-sim's documentation!

=====

```
.. toctree::
    :maxdepth: 2
    :caption: Contents:
```

modules

Indices and tables

=====

```
* :ref:`genindex`
* :ref:`modindex`
* :ref:`search`
```

## Run

```
sphinx-apidoc -o . . . --ext-autodoc
```

The `.rts` files are the ones where the documentation of a `.py` file is included.

Open the `index.html` file and see the documentation. If it doesn't show anything in safari go to

```
Einstellungen -> Sicherheit und Datenschutz -> Festplattenvollzugriff -> + -> Safari hinzufügen
```

If you have multiple `.py` files and it has successfully created the `.rts` files you have to add them to the `modules.rts` file by just adding the name of the file without suffix like so

```
foliation-sim
=====

.. toctree::
    :maxdepth: 4

    foliationSimulation
    tangentSimulation
```

## Run

```
make html
```

For a .pdf file if pdfTex is installed on your machine just type

```
make latexpdf
```

for a pdf file.

If you want to create a github page create a new branch 'page' in your repository. Create a folder docs (the name is important). Go to your local docs folder → \_build → html. Copy the content to the docs folder in github.

1. Go to settings of your github repository.
2. Go to pages.
3. Choose deploy from branch
4. Choose the page branch
5. Choose the docs folder