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# **sphinx-pyproject**

*Release 0.3.0*

**Move some of your Sphinx configuration into  
pyproject.toml**

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## Installation

### 1.1 from PyPI

```
$ python3 -m pip install sphinx-pyproject --user
```

### 1.2 from Anaconda

First add the required channels

```
$ conda config --add channels https://conda.anaconda.org/conda-forge  
$ conda config --add channels https://conda.anaconda.org/domdfcoding
```

Then install

```
$ conda install sphinx-pyproject
```

### 1.3 from GitHub

```
$ python3 -m pip install git+https://github.com/sphinx-toolbox/sphinx-pyproject@master --user
```



## Usage

The `SphinxConfig` class will load the configuration from `pyproject.toml`. By passing `globals=globals()` to the class constructor, the keys parsed from the `pyproject.toml` file will be added to the global namespace of the `conf.py` file.

For example:

```
# conf.py

from sphinx_pyproject import SphinxConfig

config = SphinxConfig("../pyproject.toml", globals=globals())

author # This name *looks* to be undefined, but it isn't.
```

The `SphinxConfig` class also provides a `collections.abc.Mapping` interface. If you are going to override or modify one of the configuration values after parsing it, the recommended approach is to explicitly assign the name:

```
extensions = config["extensions"]
extensions.append("sphinx.ext.autodoc")
```

This will prevent warnings from linters etc., but is not necessary for Sphinx to see the configuration.

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**Note:** At time of writing the “Poetry” tool does not support PEP 621. To enable a mode compatible with the `[tool.poetry]` table supply the argument `style="poetry"`. For example:

```
config = SphinxConfig("../pyproject.toml", style="poetry")
```

---

Additionally the `SphinxConfig` class takes an optional parameter `config_overrides` that can be used to dynamically update values from `pyproject.toml`. This can be helpful for setting dynamic values like `version`.

```
# conf.py
from sphinx_pyproject import SphinxConfig

from myproject import __version__ as myproject_version

config = SphinxConfig("../pyproject.toml", globals=globals(), config_overrides = {
    ↪ "version": myproject_version})
```

## 2.1 Configuration

sphinx-pyproject parses the configuration from the `[project]` and `[tool.sphinx-pyproject]` tables in `pyproject.toml`. The `[project]` table is defined in [PEP 621](#). sphinx-pyproject only uses the following keys:

- `name` – The name of the project.
- `version` – The version of the project.
- `description` – The summary description of the project.
- One of `authors/maintainers`.

The remaining Sphinx configuration values can be provided in the `[tool.sphinx-pyproject]` table.

See [this project's pyproject.toml file](#) for an example of this configuration.



## API Reference

Move some of your Sphinx configuration into `pyproject.toml`.

### Classes:

<code>SphinxConfig</code> ( <code>[pyproject_file, globalns, ...]</code> )	Read the Sphinx configuration from <code>pyproject.toml</code> .
<code>ProjectParser</code> ()	Parser for <b>PEP 621</b> metadata from <code>pyproject.toml</code> .
<code>PoetryProjectParser</code> ()	Parser for poetry metadata from <code>pyproject.toml</code> .

```
class SphinxConfig (pyproject_file='./pyproject.toml', *, globalns=None, style='pep621',
                    config_overrides=None)
```

Bases: `Mapping[str, Any]`

Read the Sphinx configuration from `pyproject.toml`.

### Parameters

- **pyproject\_file** (`Union[str, Path, PathLike]`) – The path to the `pyproject.toml` file. Default `'../pyproject.toml'`.
- **globalns** (`Optional[MutableMapping]`) – The global namespace of the `conf.py` file. The variables parsed from the `[tool.sphinx-pyproject]` table will be added to this namespace. By default, or if explicitly `None`, this does not happen.
- **style** (`str`) – Either `pep621` (default), or `poetry` to read configuration from the `[tool.poetry]` table.
- **config\_overrides** (`Optional[MutableMapping]`) – Custom configuration overrides. This parameter can be used to dynamically update values from `pyproject.toml`. This can be used to patch dynamic values like `version`. By default, or if explicitly `None`, no config updates are performed.

Changed in version 0.2.0: Added the `style` keyword argument.

Changed in version 0.3.0: Added the `config_overrides` keyword argument.

### Attributes:

<code>name</code>	The value of the <code>project.name</code> key in the <b>PEP 621</b> metadata.
<code>version</code>	The value of the <code>project.version</code> key in the <b>PEP 621</b> metadata.
<code>description</code>	The value of the <code>project.description</code> key in the <b>PEP 621</b> metadata.
<code>author</code>	A string giving the names of the authors.

### Methods:

<code>__getitem__</code> ( <code>item</code> )	Returns the value of the given key in the <code>tool.sphinx-pyproject</code> table.
<code>__len__</code> ()	Returns the number of keys in the <code>tool.sphinx-pyproject</code> table.
<code>__iter__</code> ()	Returns an iterator over the keys in the <code>tool.sphinx-pyproject</code> table.

**name****Type:** `str`

The value of the `project.name` key in the **PEP 621** metadata.

Underscores are replaced by dashes but **PEP 508** normalization is *not* applied.

The recommendation is to assign this to the `project` variable in `conf.py`:

```
from sphinx_pyproject import SphinxConfig

config = SphinxConfig()
project = config.name
```

**version****Type:** `str`

The value of the `project.version` key in the **PEP 621** metadata.

Converted to a string if the value was a number in the `pyproject.toml` file.

**description****Type:** `str`

The value of the `project.description` key in the **PEP 621** metadata.

**author****Type:** `str`

A string giving the names of the authors.

This is parsed from the `project.authors` key in the **PEP 621** metadata, or the `project.maintainers` key as a fallback.

The names are joined together, e.g.:

```
# pyproject.toml

[[project.authors]]
name = "Dominic Davis-Foster"

[[project.authors]]
name = "Joe Bloggs"

[[project.authors]]
name = "Jane Doe"
```

```
>>> SphinxConfig("pyproject.toml").author
'Dominic Davis-Foster, Joe Bloggs and Jane Doe'
```

**\_\_getitem\_\_** (*item*)

Returns the value of the given key in the `tool.sphinx-pyproject` table.

**Parameters** *item* (`str`)

**Return type** `Any`

`__len__()`

Returns the number of keys in the `tool.sphinx-pyproject` table.

**Return type** `int`

`__iter__()`

Returns an iterator over the keys in the `tool.sphinx-pyproject` table.

**Return type** `Iterator[str]`

**class ProjectParser**

Bases: `AbstractConfigParser`

Parser for **PEP 621** metadata from `pyproject.toml`.

**Methods:**

<code>get_namespace(filename, config)</code>	Returns the <code>[project]</code> table in a <code>project.toml</code> file.
<code>parse_name(config)</code>	Parse the <code>name</code> key.
<code>parse_version(config)</code>	Parse the <code>version</code> key.
<code>parse_description(config)</code>	Parse the <code>description</code> key.
<code>parse_author(config)</code>	Parse the <code>authors/maintainers</code> key.
<code>parse(config[, set_defaults])</code>	Parse the TOML configuration.

**static** `get_namespace(filename, config)`

Returns the `[project]` table in a `project.toml` file.

**Parameters**

- **filename** (`PathPlus`) – The filename the TOML data was read from. Used in error messages.
- **config** (`Dict[str, Any]`) – The data from the TOML file.

New in version 0.2.0.

**Return type** `Dict[str, Any]`

**parse\_name** (`config`)

Parse the `name` key.

**Parameters** **config** (`Dict[str, Any]`) – The unparsed TOML config for the `[project]` table.

**Return type** `str`

**parse\_version** (`config`)

Parse the `version` key.

**Parameters** **config** (`Dict[str, Any]`) – The unparsed TOML config for the `[project]` table.

**Return type** `str`

**parse\_description** (*config*)

Parse the `description` key.

**Parameters** **config** (`Dict[str, Any]`) – The unparsed TOML config for the `[project]` table.

**Return type** `str`

**static parse\_author** (*config*)

Parse the `authors/maintainers` key.

**Parameters** **config** (`Dict[str, Any]`) – The unparsed TOML config for the `[project]` table.

**Return type** `str`

**parse** (*config*, *set\_defaults=False*)

Parse the TOML configuration.

**Parameters**

- **config** (`Dict[str, Any]`)
- **set\_defaults** (`bool`) – Has no effect in this class. Default `False`.

**Return type** `Dict[str, Any]`

**class PoetryProjectParser**

Bases: `ProjectParser`

Parser for poetry metadata from `pyproject.toml`.

New in version 0.2.0.

**Methods:**

<code>get_namespace(filename, config)</code>	Returns the <code>[tool.poetry]</code> table in a <code>project.toml</code> file.
<code>parse_author(config)</code>	Parse poetry's authors key.

**static get\_namespace** (*filename*, *config*)

Returns the `[tool.poetry]` table in a `project.toml` file.

**Parameters**

- **filename** (`PathPlus`) – The filename the TOML data was read from. Used in error messages.
- **config** (`Dict[str, Any]`) – The data from the TOML file.

**Return type** `Dict[str, Any]`

**static parse\_author** (*config*)

Parse poetry's authors key.

**Parameters** **config** (`Dict[str, Any]`) – The unparsed TOML config for the `[tool.poetry]` table.

**Return type** `str`

## Downloading source code

The sphinx-pyproject source code is available on GitHub, and can be accessed from the following URL:  
`https://github.com/sphinx-toolbox/sphinx-pyproject`

If you have git installed, you can clone the repository with the following command:

```
$ git clone https://github.com/sphinx-toolbox/sphinx-pyproject
```

```
Cloning into 'sphinx-pyproject'...
remote: Enumerating objects: 47, done.
remote: Counting objects: 100% (47/47), done.
remote: Compressing objects: 100% (41/41), done.
remote: Total 173 (delta 16), reused 17 (delta 6), pack-reused 126
Receiving objects: 100% (173/173), 126.56 KiB | 678.00 KiB/s, done.
Resolving deltas: 100% (66/66), done.
```

Alternatively, the code can be downloaded in a ‘zip’ file by clicking:

*Clone or download → Download Zip*

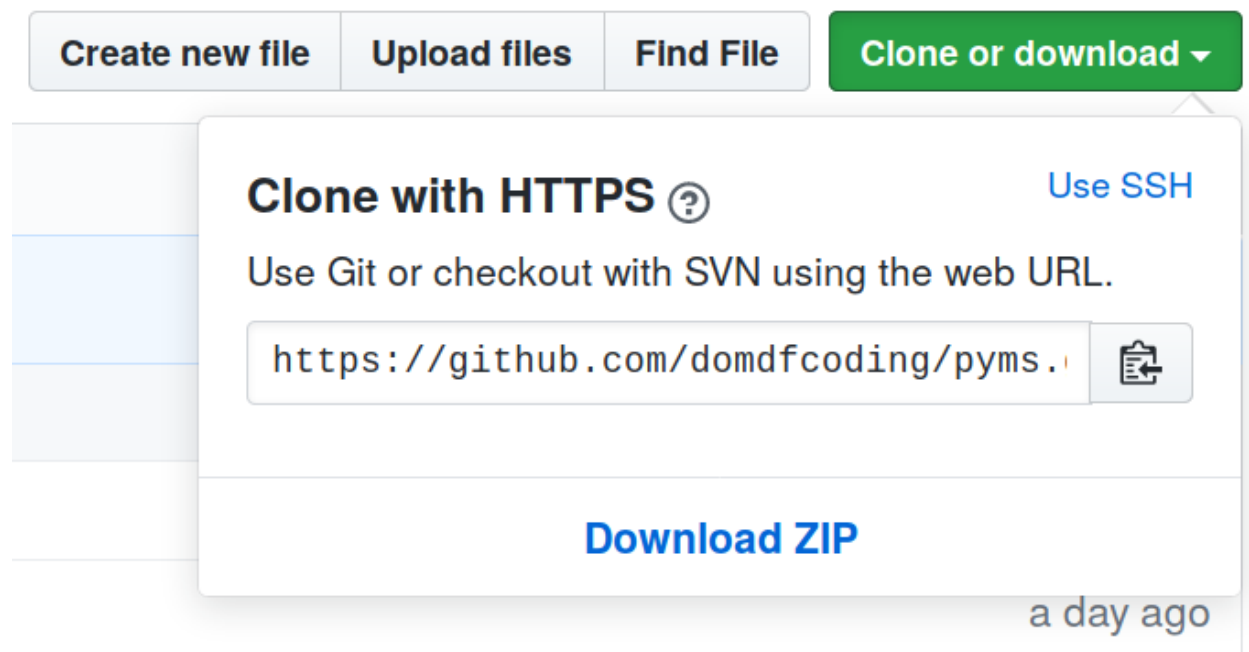


Fig. 1: Downloading a ‘zip’ file of the source code

## 4.1 Building from source

The recommended way to build `sphinx-pyproject` is to use `tox`:

```
$ tox -e build
```

The source and wheel distributions will be in the directory `dist`.

If you wish, you may also use `pep517.build` or another **PEP 517**-compatible build tool.

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```

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