
SEAMM Forcefield Utilities Documentation

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Paul Saxe

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SEAMM FORCEFIELD UTILITIES

The SEAMM Forcefield Utilities read and write forcefields, assigns them to molecules, and creates energy expressions.

- Free software: BSD license
- Documentation: https://seamm_ff_util.readthedocs.io.

1.1 Features

- TODO

1.2 Credits

This package was created with [Cookiecutter](#) and the [molssi-seamm/cookiecutter-seamm-plugin](#) project template.

Developed by the Molecular Sciences Software Institute (MolSSI), which receives funding from the [National Science Foundation](#) under award ACI-1547580

INSTALLATION

2.1 Stable release

To install the SEAMM Forcefield Utilities, run this command in your terminal:

```
$ pip install seamm_ff_util
```

This is the preferred method to install the SEAMM Forcefield Utilities, as it will always install the most recent stable release.

If you don't have `pip` installed, this [Python installation guide](#) can guide you through the process.

2.2 From sources

The sources for Forcefield can be downloaded from the [Github repo](#).

You can either clone the public repository:

```
$ git clone git://github.com/molssi-seamm/seamm_ff_util
```

Or download the [tarball](#):

```
$ curl -OL https://github.com/molssi-seamm/seamm_ff_util/tarball/master
```

Once you have a copy of the source, you can install it with:

```
$ python setup.py install
```

CHAPTER THREE

USAGE

To use the SEAMM Forcefield Utilities in a project:

```
import seamm_ff_util
```


CONTRIBUTING

Contributions are welcome, and they are greatly appreciated! Every little bit helps, and credit will always be given. You can contribute in many ways:

4.1 Types of Contributions

4.1.1 Report Bugs

Report bugs at https://github.com/molssi-seamm/seamm_ff_util/issues.

If you are reporting a bug, please include:

- Your operating system name and version.
- Any details about your local setup that might be helpful in troubleshooting.
- Detailed steps to reproduce the bug.

4.1.2 Fix Bugs

Look through the GitHub issues for bugs. Anything tagged with “bug” and “help wanted” is open to whoever wants to implement it.

4.1.3 Implement Features

Look through the GitHub issues for features. Anything tagged with “enhancement” and “help wanted” is open to whoever wants to implement it.

4.1.4 Write Documentation

SEAMM_FF_Util could always use more documentation, whether as part of the official SEAMM_FF_Util docs, in docstrings, or even on the web in blog posts, articles, and such.

4.1.5 Submit Feedback

The best way to send feedback is to file an issue at https://github.com/molssi-seamm/seamm_ff_util/issues.

If you are proposing a feature:

- Explain in detail how it would work.
- Keep the scope as narrow as possible, to make it easier to implement.
- Remember that this is a volunteer-driven project, and that contributions are welcome :)

4.2 Get Started!

Ready to contribute? Here's how to set up *seamm_ff_util* for local development.

1. Fork the *seamm_ff_util* repo on GitHub.
2. Clone your fork locally:

```
$ git clone git@github.com:your_name_here/seamm_ff_util.git
```

3. Install your local copy into a virtualenv. Assuming you have virtualenvwrapper installed, this is how you set up your fork for local development:

```
$ mkvirtualenv seamm_ff_util
$ cd seamm_ff_util/
$ python setup.py develop
```

4. Create a branch for local development:

```
$ git checkout -b name-of-your-bugfix-or-feature
```

Now you can make your changes locally.

5. When you're done making changes, check that your changes pass flake8 and the tests, including testing other Python versions with tox:

```
$ flake8 seamm_ff_util tests
$ python setup.py test or py.test
$ tox
```

To get flake8 and tox, just pip install them into your virtualenv.

6. Commit your changes and push your branch to GitHub:

```
$ git add .
$ git commit -m "Your detailed description of your changes."
$ git push origin name-of-your-bugfix-or-feature
```

7. Submit a pull request through the GitHub website.

4.3 Pull Request Guidelines

Before you submit a pull request, check that it meets these guidelines:

1. The pull request should include tests.
2. If the pull request adds functionality, the docs should be updated. Put your new functionality into a function with a docstring, and add the feature to the list in README.rst.
3. The pull request should work for Python 3.5, 3.6 and 3.7, and for PyPy. Check https://travis-ci.org/molssi-seamm/seamm_ff_util/pull_requests and make sure that the tests pass for all supported Python versions.

4.4 Tips

To run a subset of tests:

```
$ py.test tests.test_forcefield
```


CREDITS

5.1 Development Lead

- Paul Saxe <psaxe@molssi.org>

5.2 Contributors

None yet. Why not be the first?

HISTORY

6.1 0.1.0 (2017-12-05)

- First release on PyPI.

INDICES AND TABLES

- `genindex`
- `modindex`
- `search`