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# FUSED-Wake Documentation

*Release 0.1.0*

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<b>1 FUSED-Wake</b>	<b>3</b>
1.1 Features . . . . .	3
1.2 Credits . . . . .	3
<b>2 Installation</b>	<b>5</b>
<b>3 Usage</b>	<b>7</b>
<b>4 Contributing</b>	<b>9</b>
4.1 Types of Contributions . . . . .	9
4.2 Get Started! . . . . .	10
4.3 Pull Request Guidelines . . . . .	10
4.4 Tips . . . . .	11
<b>5 Credits</b>	<b>13</b>
5.1 Development Lead . . . . .	13
5.2 Contributors . . . . .	13
<b>6 History</b>	<b>15</b>
6.1 0.1.0 (2016-01-31) . . . . .	15
<b>7 References</b>	<b>17</b>
<b>8 Source documentation</b>	<b>19</b>
<b>9 fusedwake</b>	<b>21</b>
9.1 fusedwake package . . . . .	21
<b>10 Indices and tables</b>	<b>27</b>
<b>Bibliography</b>	<b>29</b>
<b>Python Module Index</b>	<b>31</b>



Contents:



## FUSED-Wake

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A collection of wind farm flow models for FUSED-Wind

- Free software: GNU Affero v3 license
- Documentation: <https://fusedwake.readthedocs.org>.

### 1.1 Features

- TODO

### 1.2 Credits

This package was created with [Cookiecutter](#) and the [audreyr/cookiecutter-pypackage](#) project template.



## **Installation**

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At the command line:

```
$ easy_install fusedwake
```

Or, if you have virtualenvwrapper installed:

```
$ mkvirtualenv fusedwake
$ pip install fusedwake
```



### Usage

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To use FUSED-Wake in a project:

```
import fusedwake
```



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## Contributing

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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/DTUWindEnergy/FUSED-Wake/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” is open to whoever wants to implement it.

#### 4.1.3 Implement Features

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

#### 4.1.4 Write Documentation

FUSED-Wake could always use more documentation, whether as part of the official FUSED-Wake 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/DTUWindEnergy/FUSED-Wake/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 *fusedwake* for local development.

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

```
$ git clone git@github.com:your_name_here/FUSED-Wake.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 fusedwake
$ cd FUSED-Wake/
$ 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 fusedwake tests
$ python setup.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 2.6, 2.7, 3.3, 3.4 and 3.5, and for PyPy. Check [https://travis-ci.org/rethore/FUSED-Wake/pull\\_requests](https://travis-ci.org/rethore/FUSED-Wake/pull_requests) and make sure that the tests pass for all supported Python versions.

## 4.4 Tips

To run a subset of tests:

```
$ python -m unittest tests.test_fusedwake
```



## **Credits**

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### **5.1 Development Lead**

- Juan Pablo Murcia <[jumu@dtu.dk](mailto:jumu@dtu.dk)>
- Pierre-Elouan Rethore <[pire@dtu.dk](mailto:pire@dtu.dk)>

### **5.2 Contributors**

- Ewan Macheaux
- Mathieu Gaumond
- Alfredo Pena Diaz
- Rolf-Erik Keck
- Helge Madsen



## **History**

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### **6.1 0.1.0 (2016-01-31)**

- First release on PyPI.



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**References**

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**Source documentation**

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## fusedwake

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### 9.1 fusedwake package

#### 9.1.1 Subpackages

**fusedwake.gcl package**

**Subpackages**

**fusedwake.gcl.python package**

**Subpackages**

**fusedwake.gcl.python.test package**

**Submodules**

**fusedwake.gcl.python.test.test\_gclarsen module**

**Module contents**

**Submodules**

**fusedwake.gcl.python.gcl module**

**Module contents**

**Module contents**

**fusedwake.noj package**

**Module contents**

**fusedwake.py4we package**

**Subpackages**

**fusedwake.py4we.test package**

**Subpackages**

**fusedwake.py4we.test.FBG Output package**

**Subpackages**

**fusedwake.py4we.test.FBG Output.MyUI package**

**Submodules**

**fusedwake.py4we.test.FBG Output.MyUI.MyPlotControlUI module**

**fusedwake.py4we.test.FBG Output.MyUI.MyPlotMainWindowUI module**

**Module contents**

**Submodules**

**fusedwake.py4we.test.FBG Output.FBG-read-plot module**

**fusedwake.py4we.test.FBG Output.FBGdata module**

**fusedwake.py4we.test.FBG Output.QtGuiLoader module**

**fusedwake.py4we.test.FBG Output.matplotlibwidget module**

**fusedwake.py4we.test.FBG Output.we\_file\_io module**

**Module contents**

**fusedwake.py4we.test.TSP package**

**Submodules**

**fusedwake.py4we.test.TSP.TSP\_file\_io module**

**fusedwake.py4we.test.TSP.we\_file\_io module**

**Module contents**

**Module contents**



## Submodules

`fusedwake.py4we.ADgrid_file_io module`  
`fusedwake.py4we.FBGdata module`  
`fusedwake.py4we.NM80PowerIO module`  
`fusedwake.py4we.PLC_to_ses module`  
`fusedwake.py4we.TSP_file_io module`  
`fusedwake.py4we.corwind_file_io module`  
`fusedwake.py4we.dakota module`  
`fusedwake.py4we.fortran_file module`  
`fusedwake.py4we.fortran_namelist_io module`  
`fusedwake.py4we.hawc2_res module`  
`fusedwake.py4we.mann module`  
`fusedwake.py4we.my_dat_file_io module`  
`fusedwake.py4we.ofield_file_io module`  
`fusedwake.py4we.oin_file_io module`  
`fusedwake.py4we.wasp module`  
`fusedwake.py4we.we_file_io module`

## Module contents

`fusedwake.sdwm package`

### Submodules

`fusedwake.sdwm.DWM_GClarsenPicks module`  
`fusedwake.sdwm.DWM_calc_mixL module`  
`fusedwake.sdwm.DWM_flowfield_farm module`  
`fusedwake.sdwm.DWM_init_dict module`  
`fusedwake.sdwm.DWM_main_BEM module`



## **Indices and tables**

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- genindex
- modindex
- search



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**f**

fusedwake, 25  
fusedwake.fusedwake, 25  
fusedwake.noj, 22  
fusedwake.py4we, 25  
fusedwake.py4we.test, 23  
fusedwake.py4we.test.TSP, 23  
fusedwake.sdwm, 25



## F

fusedwake (module), [25](#)  
fusedwake.fusedwake (module), [25](#)  
fusedwake.noj (module), [22](#)  
fusedwake.py4we (module), [25](#)  
fusedwake.py4we.test (module), [23](#)  
fusedwake.py4we.test.TSP (module), [23](#)  
fusedwake.sdwm (module), [25](#)