
pyline Documentation

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[GitHub](#) | [PyPi](#) | [Warehouse](#) | [ReadTheDocs](#) | [Travis-CI](#) Pyline: a grep-like, sed-like command-line tool (Python package)

1.1 Features

- Compatibility with the [original pylines recipe](#)
- Python `str.split` by an optional delimiter `str` (`-F, --input-delim`)
- Python `regex` (`-r, --regex, -R, --regex-options`)
- Output as `txt`, `csv`, `tsv`, `json`, `html` (`-O csv, --output-filetype=csv`)
- Output as Markdown/ReStructuredText checkboxes (`-O checkbox, --output-filetype=checkbox`)
- Lazy sorting (`-s, --sort-asc; -S, --sort-desc`)
- Create `path.py` (or `pathlib`) objects from each line (`-p, --path-tools`)
- Functional `namedtuples`, `iterators` `yield-ing` generators
- `optparse` argument parsing (`-h, --help`)
- `cookiecutter-pypackage` project templating

1.2 Why

Somewhat unsurprisingly, I found the [original pylines recipe](#) while searching for “python grep sed” (see `AUTHORS.rst` and `LICENSE.psf`).

I added an option for setting `p = Path(line)` in the `eval/compile` command context and [added it to my dotfiles](#) ; where it grew tests and an `optparse.OptionParser`; and is now promoted to a [GitHub](#) project with [ReadTheDocs](#) documentation, tests with `tox` and [Travis-CI](#), and a `setup.py` for [PyPi](#).

1.3 What

Pyline is an ordered [MapReduce](#) tool:

Input Reader: file, stdin (default)

Map Function: python command string, modules, regex, path tools

Partition Function: none

Compare Function: `Result(collections.namedtuple) .__cmp__`

Reduce Function: `bool()` and `sorted()`

Output Writer: `ResultWriter` classes

1.4 Installing

Install from [PyPi](#):

```
pip install pylne
```

Install from [GitHub](#) as editable (add a `pyline.pth` in `site-packages`):

```
pip install -e git+https://github.com/westurner/pyline#egg=pyline
```

1.5 Usage

Print help:

```
pyline --help
```

Process:

```
# Print every line (null transform)
cat ~/.bashrc | pylne line
cat ~/.bashrc | pylne l

# Number every line
cat ~/.bashrc | pylne -n l

# Print every word (str.split(input-delim=None))
cat ~/.bashrc | pylne words
cat ~/.bashrc | pylne w

# Split into words and print (default: tab separated)
cat ~/.bashrc | pylne 'len(w) >= 2 and w[1] or "?"'

# Select the last word, dropping lines with no words
pyline -f ~/.bashrc 'w[-1:]'

# Regex matching with groups
cat ~/.bashrc | pylne -n -r '^#(.*)' 'rgx and rgx.group()'
cat ~/.bashrc | pylne -n -r '^#(.*)'

## Original Examples
# Print out the first 20 characters of every line
tail access_log | pylne "line[:20]"

# Print just the URLs in the access log (seventh "word" in the line)
tail access_log | pylne "words[6]"
```


Work with paths and files:

```
# List current directory files larger than 1 Kb
ls | pyline -m os \
    "os.path.isfile(line) and os.stat(line).st_size > 1024 and line"

# List current directory files larger than 1 Kb
#pip install path.py
ls | pyline -p 'p and p.size > 1024 and line'
```

1.6 Documentation

<https://pyline.readthedocs.org/en/latest/>

1.7 License

Python Software License

Installation

At the command line:

```
$ easy_install pyline
```

Or, if you have virtualenvwrapper installed:

```
$ mkvirtualenv pyline  
$ pip install pyline
```

Usage

To use pylint in a project:

```
import pylint
```

To use pylint as a shell command:

Command u'pylint --help' failed: [Errno 2] No such file or directory

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/westurner/pyline/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

pyline could always use more documentation, whether as part of the official pylines 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/westurner/pyline/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 *pyline* for local development.

1. Fork the *pyline* repo on GitHub.

2. Clone your fork locally:

```
$ git clone git@github.com:your_name_here/pyline.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 pyl  
$ cd pyl/  
$ 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 pyl 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, and 3.3, and for PyPy. Check https://travis-ci.org/westurner/pyline/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_pylines
```

Credits

- Graham Fawcett
- Jacob Oscarson
- Mark Eichin
- Wes Turner – <https://github.com/westurner>

History

6.1 0.2.0 (2014-08-24)

- BUG: add NullHandler to logger (closes #6)
- ENH: Add checkbox output formatter (closes #5)

6.2 0.1.5 (2014-05-12)

- DOC: Updated HISTORY.rst
- DOC: setup.py keywords, classifiers

6.3 0.1.4 (2014-05-12)

- DOC: setup.py version, download_url, license

6.4 0.1.3 (2014-05-12)

- DOC: setup.py description spans newline

6.5 0.1.2 (2014-05-12)

- DOC: Setup.py long_description

6.6 0.1.1 (2014-05-12)

- CLN: factor functions out of main and pyline
- BUG: `-p path.py` option

6.7 0.1.0 (2014-05-12)

- First release on PyPI.

6.8 0.0.1 (Unreleased)

- Updated 2012.11.17, Wes Turner
- Updated 2005.07.21, thanks to Jacob Oscarson
- Updated 2006.03.30, thanks to Mark Eichen

see: <http://code.activestate.com/recipes/437932-pyline-a-grep-like-sed-like-command-line-tool/>

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Indices and tables

- *genindex*
- *modindex*
- *search*