
pip2 Documentation

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DEVELOPER GUIDE

1.1 Contributing to Pip2

1.1.1 Contributing with Code

Supported Python Versions

Pip2 currently only supports Python 3.2 and 3.3 (scheduled for release in August 2012), but there are plans to support versions of Python back to 2.6-ish.

Prerequisites

The following tools are required:

- Python 3.2 or 3.3 (preferably both)
- Git
- pip and virtualenv

You must also have a Github account and basic familiarity with the tools listed above.

These instructions assume a Unix-like operating system (e.g., Mac or Linux). Minor modifications may be required for contributing to pip2 on Windows.

Forking the Repository

Fork the main pip2 repository on Github, and then clone your personal fork:

```
$ git clone https://github.com/<YOUR_USER_NAME>/pip2
```

Installation

Create and activate a virtualenv for pip2 development. For example, if you are developing with Python 3.2:

```
$ virtualenv --python=python3.2 pip2-dev-py3.2
$ source pip2-dev-py3.2/bin/activate
```

For versions of Python prior to 3.3, pip2 depends on distutils2 which is often [broken](#) and/or outdated on PyPI. For now, just use pip to install from the python3 branch of the distutils2 repository:

```
$ pip install http://hg.python.org/distutils2/archive/python3.tar.bz2
```

Install pip2:

```
$ cd pip2/  
$ python setup.py develop
```

Running the Tests

Pip2 uses [nose](#) and [mock](#) for testing. To install nose:

```
$ pip install nose
```

Mock has been included in Python's standard library since version 3.3. For versions of Python prior to 3.3:

```
$ pip install mock
```

Now, run the unit tests from the root directory of the pip2 repository. You should run these tests frequently as you are modifying the code:

```
$ nosetests
```

If the [coverage](#) module is installed (*pip install coverage*), options may be provided to nose so that coverage data is generated:

```
$ nosetests --with-coverage
```

Usually only coverage data for pip2 will be needed. To run the coverage tool on just the pip2 package:

```
$ nosetests --with-coverage --cover-package=pip2
```

To generate HTML coverage data in the `./cover/` directory:

```
$ nosetests --with-coverage --cover-package=pip2 --cover-html
```

Once your changes are working well in your development environment, [tox](#) can be used to run these same tests in a clean environment under multiple versions of Python. First, install tox:

```
$ pip install tox
```

The first time you run it, tox will take a while (quite a few minutes) to build virtualenvs and install the required packages:

```
$ tox
```

Subsequent tox runs will reuse the existing virtualenvs and run much faster. Note, however, that you may want to occasionally force the virtualenvs to be recreated by running `tox -recreate` to get the latest versions of pip2's dependencies. Run `tox -help`, visit [tox's website](#), or view the `tox.ini` file in pip2's repository for additional information on using tox.

1.1.2 Contributing with Documentation

Building the Documentation

Install the tools required to build the documentation:

```
$ pip install sphinx
```

Build the HTML version of the documentation:

```
$ cd pip2/docs/  
$ make html
```

Launch `pip2/docs/_build/html/index.html` in your browser.