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# **bootstrap-py Documentation**

*Release 0.7.0*

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# Contents

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<b>1</b>	<b>Bootstrap Python Package</b>	<b>3</b>
1.1	Status . . . . .	3
1.2	Requirements . . . . .	3
1.3	Features . . . . .	3
1.4	Usage . . . . .	4
<b>2</b>	<b>References</b>	<b>5</b>
<b>3</b>	<b>ChangeLog</b>	<b>9</b>
3.1	0.7.0 (2018-11-03) . . . . .	9
3.2	0.6.0 (2016-06-08) . . . . .	9
3.3	0.5.1 (2016-05-17) . . . . .	9
3.4	0.5.0 (2016-05-07) . . . . .	10
3.5	0.4.8 (2016-04-25) . . . . .	10
3.6	0.4.7 (2016-04-24) . . . . .	10
3.7	0.4.6 (2016-04-21) . . . . .	10
3.8	0.4.5 (2016-04-06) . . . . .	11
3.9	0.4.4 (2016-04-05) . . . . .	11
3.10	0.4.3 (2016-04-04) . . . . .	12
3.11	0.4.2 (2016-03-08) . . . . .	12
3.12	0.4.1 (2016-03-07) . . . . .	12
3.13	0.4.0 (2016-03-07) . . . . .	12
3.14	0.3.0 (2016-02-21) . . . . .	13
3.15	0.2.1 (2016-02-16) . . . . .	13
3.16	0.2.0 (2016-02-15) . . . . .	13
3.17	0.1.1 (2016-02-02) . . . . .	13
3.18	0.1.0 (2016-02-02) . . . . .	13
<b>4</b>	<b>Indices and tables</b>	<b>15</b>
	<b>Python Module Index</b>	<b>17</b>



Contents:



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## Bootstrap Python Package

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The `bootstrap-py` provides generating the Python packages.

### 1.1 Status



### 1.2 Requirements

- Python 3.5 over

### 1.3 Features

- Generating Python package.
- Checking Python package name existence at PyPI.
- Test and conde checking environment is configured with the [Tox](#), [Pytest](#), and others.
  - [pycodestyle](#)
  - [pytest-cov](#)
  - [pytest-flakes](#)
  - [Pylint](#)
  - [pydocstyle](#)
- Generating documentation automatically with the [Sphinx](#).
- Configuration Git repository, initial commit.

- Generate sample code using `--with-samples` option.

## 1.4 Usage

### 1.4.1 Install bootstrap-py

Install bootstrap-py:

```
$ virtualenv venv
$ . venv/bin/activate
(venv)$ python -m pip install bootstrap-py
```

### 1.4.2 Generate Python package

Generate your Python package.:

```
(venv)$ bootstrap-py create -a 'Your author name' -e 'your-author-email@example.org' \
-u 'https://your-package-website.example.org' -o '/path/to/package-dir' \
-l 'select-the-license' 'your-package-name'
(venv)$ deactivate
$ cd /path/to/package-dir
$ ls
MANIFEST.in  docs      pytest.ini  setup.py    utils
README.rst   libneta  setup.cfg   tox.ini
```

### 1.4.3 List license choices

List license description choices.:

```
(venv)$ bootstrap-py list -l
GPL          : GNU General Public License (GPL)
CPL          : Common Public License
IOSL        : Intel Open Source License
GPLv3+      : GNU General Public License v3 or later (GPLv3+)
(omit)
```

### 1.4.4 Using tox

Running test with tox:

```
$ pip install --user tox
$ tox
(omit)

_____ summary _____
py35: commands succeeded
py36: commands succeeded
pycodestyle: commands succeeded
pydocstyle: commands succeeded
docs: commands succeeded
congratulations :)
```



`bootstrap_py.control.`

`bootstrap_py.control.retrieve_metadata()`  
Retrieve metadata.

**Return type** `bootstrap_py.classifiers.Classifiers`

**Returns** `Classifiers()`

`bootstrap_py.control.print_licences(params, metadata)`  
Print licenses.

**Parameters**

- **params** (`argparse.Namespace`) – parameter
- **metadata** (`bootstrap_py.classifier.Classifiers`) – package metadata

`bootstrap_py.control.check_repository_existence(params)`  
Check repository existence.

**Parameters** **params** (`argparse.Namespace`) – parameters

`bootstrap_py.control.check_package_existence(params)`  
Check package existence.

**Parameters** **params** (`argparse.Namespace`) – parameters

`bootstrap_py.control.generate_package(params)`  
Generate package repository.

**Parameters** **params** (`argparse.Namespace`) – parameters

`bootstrap_py.package.`

**class** `bootstrap_py.package.PackageData(args)`  
Bases: `object`

Package meta data class.

```
default_version = '0.1.0'  
    Configured the default “version” of setup.setup().  
  
warning_message = '##### ToDo: Rewrite me #####'  
    Users should rewrite parameters after they generate Python package.  
  
to_dict ()  
    Convert the package data to dict.
```

```
class bootstrap_py.package.PackageTree (pkg_data)  
    Bases: object  
  
    Package directory tree class.  
  
    template_name = 'bootstrap_py'  
        Jinja2 template name  
  
    suffix = '-bootstrap-py'  
        the suffix name of working directory for generating  
  
    init = '__init__.py'  
        init filename  
  
    exec_perm = 493  
        default permission  
  
    pkg_dirs = ['{module_name}', '{module_name}/tests']  
        include directories to packages  
  
    move ()  
        Move directory from working directory to output directory.  
  
    clean ()  
        Clean up working directory.  
  
    generate ()  
        Generate package directory tree.  
  
    vcs_init ()  
        Initialize VCS repository.
```

bootstrap\_py.classifiers.

```
class bootstrap_py.classifiers.Classifiers  
    Bases: object  
  
    Classifiers.  
  
    url = 'https://pypi.python.org/pypi?%3Aaction=list_classifiers'  
        list_classifiers url  
  
    prefix_status = 'Development Status :: '  
        prefix status  
  
    prefix_lic = 'License :: OSI Approved :: '  
        prefix licences  
  
    status ()  
        Development status.  
  
    licenses ()  
        OSI Approved license.  
  
    licenses_desc ()  
        Remove prefix.
```

bootstrap\_py.docs.

bootstrap\_py.docs.**build\_sphinx** (*pkg\_data*, *projectdir*)  
Build sphinx documentation.

**Return type** int

**Returns** subprocess.call return code

**Parameters**

- **pkg\_data** (*bootstrap\_py.control.PackageData*) – package meta data
- **projectdir** (*str*) – project root directory

bootstrap\_py.pypi.

bootstrap\_py.pypi.**PYPI\_URL** = 'https://pypi.org/pypi/{0}/json'  
PyPI JSONC API url

bootstrap\_py.pypi.**package\_existent** (*name*)  
Search package.

- *bootstrap\_py.exceptions.Conflict* exception occurs when user specified name has already existed.
- *bootstrap\_py.exceptions.BackendFailure* exception occurs when PyPI service is down.

**Parameters** **name** (*str*) – package name

bootstrap\_py.vcs.

**class** bootstrap\_py.vcs.**VCS** (*repo\_dir*, *metadata*)  
Bases: object  
VCS class.

bootstrap\_py.exceptions.

**exception** bootstrap\_py.exceptions.**Error**  
Bases: Exception  
Base error class.

**with\_traceback** ()  
Exception.with\_traceback(tb) – set self.\_\_traceback\_\_ to tb and return self.

**exception** bootstrap\_py.exceptions.**NotFound**  
Bases: *bootstrap\_py.exceptions.Error*  
Not Found.

**with\_traceback** ()  
Exception.with\_traceback(tb) – set self.\_\_traceback\_\_ to tb and return self.

**exception** bootstrap\_py.exceptions.**Conflict**  
Bases: *bootstrap\_py.exceptions.Error*  
Conflict.

**with\_traceback** ()  
Exception.with\_traceback(tb) – set self.\_\_traceback\_\_ to tb and return self.

**exception** bootstrap\_py.exceptions.**BackendFailure**  
Bases: *bootstrap\_py.exceptions.Error*

PyPI service down.

**with\_traceback()**

Exception.with\_traceback(tb) – set self.\_\_traceback\_\_ to tb and return self.

### 3.1 0.7.0 (2018-11-03)

- Fixes package\_existent for the new PyPI API.
- Updates templates.
- Fixes pylint violations.
- Unsupports Python 2.x and PyPy (compatible Python 2.7).
- Supports Python 3.7.
- Fixes handling empty command without arguments. (Thanks [@sourcepirate](#))

### 3.2 0.6.0 (2016-06-08)

- Uses pycodestyle instead of pep8.

### 3.3 0.5.1 (2016-05-17)

- Adds `--doctest-modules` option.
- Fixes pylint option argument.
- Removes doctest exception sample.

Changes follows when enable doctest-modules.:

```
diff --git a/pytest.ini b/pytest.ini
index 635a7f9..15cc929 100644
--- a/pytest.ini
+++ b/pytest.ini
```

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```
@@ -7,6 +7,7 @@ addopts =
    --cov your_package_name
    --cov-report=term
    --cov-report=html
+    --doctest-modules
  pep8ignore =
    setup.py ALL
    docs/source/conf.py ALL
diff --git a/tox.ini b/tox.ini
index 141d468..b8c1f32 100644
--- a/tox.ini
+++ b/tox.ini
@@ -10,7 +10,7 @@ envlist =

  [testenv]
  commands =
-  py.test --pylint --pylint-rcfile={toxinidir}/.pylintrc
+  py.test --pylint --pylint-rcfile={toxinidir}/.pylintrc your_package_name

  [py]
  deps=
```

### 3.4 0.5.0 (2016-05-07)

- Adds `--with-samples` options; generating sample code.
- Fixes bugs module name when package name includes hyphen.
- Fixes comparing version bug in updatable for Python3.
- Some refactorings.

### 3.5 0.4.8 (2016-04-25)

- Fixes warning of build sphinx without `docs/source/_static` directory.
- Unsupports IP address url.

### 3.6 0.4.7 (2016-04-24)

- Adds url validator.
- Adds long description checker.

### 3.7 0.4.6 (2016-04-21)

- Fixes `.travis.yml` template.

Generated package with v0.4.5 or less that has bugs `.travis.yml` configuration file. Modify the follows manually.:

```
diff --git a/.travis.yml b/.travis.yml
index ab128da..600125e 100644
--- a/.travis.yml
+++ b/.travis.yml
@@ -14,6 +14,11 @@ after_success:
     - coveralls --verbose

matrix:
+ allow_failures:
+   - env: TOX_ENV=py27
+   - env: TOX_ENV=py33
+   - env: TOX_ENV=py34
+   - env: TOX_ENV=pypy
include:
- python: 3.5
-   env: TOX_ENV=py35
+ python: 3.5
+   env: TOX_ENV=py35
```

### 3.8 0.4.5 (2016-04-06)

- Fixes tox.ini template.

Generated package with v0.4.4 or less that has bugs tox.ini configuration file. Modify the follows manually.

- Fixes *your\_package\_name* with snake case. Modify the follows manually.:

```
diff --git a/tox.ini b/tox.ini
index a9d823f..db825cc 100644
--- a/tox.ini
+++ b/tox.ini
@@ -49,7 +49,7 @@ basepython = pypy
[testenv:pep257]
deps=
    pep257
-commands = pep257 bootstrap_py
+commands = pep257 your_package_name
basepython = python3.5

[testenv:docs]
```

### 3.9 0.4.4 (2016-04-05)

- Adds symlink to pre-commit hook.

Generated package with v0.4.3 or less that has bugs pre-commit hook script. Modify the follows manually.:

```
$ chmod +x utils/pre-commit
$ ln -s ../../utils/pre-commit .git/hooks/pre-commit
```

### 3.10 0.4.3 (2016-04-04)

- Fixes pre-commit hook script permission.

### 3.11 0.4.2 (2016-03-08)

- Fixes configuratuon version, release.
- Fixes url, author\_email in setup.py.

Generated package with v0.4.1 or less that has bugs Sphinx documentation. Modify the follows manually.

- Fixes docs/source/index.rst:

```
diff --git a/docs/source/index.rst b/docs/source/index.rst
index b3404ac..d8bdc83 100644
--- a/docs/source/index.rst
+++ b/docs/source/index.rst
@@ -16,8 +16,8 @@ Contents:

    CHANGELOG

- Indices and tables
- =====
+Indices and tables
+=====

* :ref:`genindex`
* :ref:`modindex`
```

- Renames docs/source/README to docs/source/README.rst.
- Fixes documentation version in docs/source/conf.py.
- Fixes auth\_email, url in setup.py.

### 3.12 0.4.1 (2016-03-07)

- Adds exception handler package update.
- Fixes some docstring.

### 3.13 0.4.0 (2016-03-07)

- Adds checking latest version.
- Fixes Sphinx template bugs.
- Does some refactoring.



### 3.14 0.3.0 (2016-02-21)

- git init and initial commit.
- Adds `--no-check` option.
- Fixes list subcommand.

### 3.15 0.2.1 (2016-02-16)

- Fixes failing create sub-command.

### 3.16 0.2.0 (2016-02-15)

- Adds create, list sub-command.
  - “create”: generating Python package.
  - “list”: Print license description for choices.
- Changes mutually exclusive group; username, url options.
- Add checking package name in PyPI.
- Adds some exception handling.

### 3.17 0.1.1 (2016-02-02)

- Fixes README template

### 3.18 0.1.0 (2016-02-02)

- First release



## CHAPTER 4

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### Indices and tables

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- genindex
- modindex
- search



**b**

`bootstrap_py.classifiers`, 6  
`bootstrap_py.control`, 5  
`bootstrap_py.docs`, 7  
`bootstrap_py.exceptions`, 7  
`bootstrap_py.package`, 5  
`bootstrap_py.pypi`, 7  
`bootstrap_py.vcs`, 7



**B**

BackendFailure, 7  
bootstrap\_py.classifiers (module), 6  
bootstrap\_py.control (module), 5  
bootstrap\_py.docs (module), 7  
bootstrap\_py.exceptions (module), 7  
bootstrap\_py.package (module), 5  
bootstrap\_py.pypi (module), 7  
bootstrap\_py.vcs (module), 7  
build\_sphinx() (in module bootstrap\_py.docs), 7

**C**

check\_package\_existence() (in module bootstrap\_py.control), 5  
check\_repository\_existence() (in module bootstrap\_py.control), 5  
Classifiers (class in bootstrap\_py.classifiers), 6  
clean() (bootstrap\_py.package.PackageTree method), 6  
Conflict, 7

**D**

default\_version (bootstrap\_py.package.PackageData attribute), 5

**E**

Error, 7  
exec\_perm (bootstrap\_py.package.PackageTree attribute), 6

**G**

generate() (bootstrap\_py.package.PackageTree method), 6  
generate\_package() (in module bootstrap\_py.control), 5

**I**

init (bootstrap\_py.package.PackageTree attribute), 6

**L**

licenses() (bootstrap\_py.classifiers.Classifiers method), 6

licenses\_desc() (bootstrap\_py.classifiers.Classifiers method), 6

**M**

move() (bootstrap\_py.package.PackageTree method), 6

**N**

NotFound, 7

**P**

package\_existent() (in module bootstrap\_py.pypi), 7  
PackageData (class in bootstrap\_py.package), 5  
PackageTree (class in bootstrap\_py.package), 6  
pkg\_dirs (bootstrap\_py.package.PackageTree attribute), 6  
prefix\_lic (bootstrap\_py.classifiers.Classifiers attribute), 6  
prefix\_status (bootstrap\_py.classifiers.Classifiers attribute), 6  
print\_licences() (in module bootstrap\_py.control), 5  
PYPI\_URL (in module bootstrap\_py.pypi), 7

**R**

retrieve\_metadata() (in module bootstrap\_py.control), 5

**S**

status() (bootstrap\_py.classifiers.Classifiers method), 6  
suffix (bootstrap\_py.package.PackageTree attribute), 6

**T**

template\_name (bootstrap\_py.package.PackageTree attribute), 6  
to\_dict() (bootstrap\_py.package.PackageData method), 6

**U**

url (bootstrap\_py.classifiers.Classifiers attribute), 6

**V**

VCS (class in bootstrap\_py.vcs), 7  
vcs\_init() (bootstrap\_py.package.PackageTree method), 6

## W

- warning\_message (bootstrap\_py.package.PackageData attribute), 6
- with\_traceback() (bootstrap\_py.exceptions.BackendFailure method), 8
- with\_traceback() (bootstrap\_py.exceptions.Conflict method), 7
- with\_traceback() (bootstrap\_py.exceptions.Error method), 7
- with\_traceback() (bootstrap\_py.exceptions.NotFound method), 7