pkgsetcomp Documentation

Release 0.1.3

Wes Turner

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CHAPTER 1

pkgsetcomp

GitHub | PyPi | Warehouse | ReadTheDocs | Travis-CI pkgsetcomp: compare and generate manifest / installed package reports

1.1 Features

- Compare packages listed in a debian/ubuntu APT manifest file with currently installed packages
- optparse argument parsing (`-h`, `--help`)
- cookiecutter-pypackage project templating

1.2 Installing

Install from PyPi:

```
pip install pkgsetcomp
```

Install from GitHub as editable (add a `pkgsetcomp.pth` in `site-packages`):

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

1.3 Usage

Print help:

```
pkgsetcomp --help
```

Generate reports in the current directory:

```
pkgsetcomp
```

Generate a report comparing `.manifest` packages with installed packages:

```
MANIFEST="http://releases.ubuntu.com/14.04/ubuntu-14.04-desktop-amd64.manifest"
pkgsetcomp --manifest="$MANIFEST"
```

1.4 License

BSD Software License

CHAPTER 2

Installation

At the command line:

```
$ easy_install pkgsetcomp
```

Or, if you have virtualenvwrapper installed:

```
$ mkvirtualenv pkgsetcomp
$ pip install pkgsetcomp
```

CHAPTER 3

Usage

To use pkgsetcomp in a project:

```
import pkgsetcomp
```

To use pkgsetcomp as a shell command:

Command u'pkgsetcomp –help' failed: [Errno 2] No such file or directory

CHAPTER 4

pkgsetcomp package

4.1 Submodules

4.2 pkgsetcomp.pkgsetcomp module

class pkgsetcomp.pkgsetcomp.**PkgComparison**
Bases: pkgsetcomp.pkgsetcomp.PkgComparison

A package set comparison namedtuple with serializers

print_string()
Print the minimal, also_installed, and uninstalled lists

write_package_scripts(*output_dir*)
Generate boilerplate apt-get command scripts for minimal, also_installed, and uninstalled

Parameters **output_dir** (*str*) – directory in which to write scripts

pkgsetcomp.pkgsetcomp.**compare_package_lists**(*manifest*, *installed*)
Compare two sets (manifest, installed) of package names.

Parameters

- **default** (*iterable*) – names of packages listed in a given MANIFEST
- **installed** (*iterable*) – names of packages installed locally

Returns set comparison outputs

Return type PkgComparison

pkgsetcomp.pkgsetcomp.**ensure_file**(*command*, *filename*, *overwrite=False*, *shell=False*)
Run a command if a file doesn't exist

Parameters

- **command** (*str*) – shell command to subprocess.call
- **filename** (*str*) – path to os.path.exists
- **overwrite** (*bool*) – if true, overwrite existing file
- **shell** (*bool*) – subprocess command parsing

Returns None

pkgsetcomp.pkgsetcomp.**get_installed_packages**(*cache=False*, *output_dir='.'*, *output_filename='installed.pkgs.txt'*)

Get a list of the packages in a manifest

Parameters **manifest_url** (*str*) – path or URL of a debian/ubuntu .manifest file

Returns:

pkgsetcomp.pkgsetcomp.**get_manifest_packages**(*cache=False*, *manifest_url=None*, *output_dir='.'*, *output_filename='manifest.pkgs.txt'*)

Get a list of the packages in a manifest

Parameters **manifest_url** (*str*) – path or URL of a debian/ubuntu .manifest file

Returns:

pkgsetcomp.pkgsetcomp.**get_package_lists**(*manifest_url='/var/build/user_builds/pkgsetcomp/checkouts/latest/pkgsetco*
12.04.4-desktop-i386.manifest', *cache=False*, *output_dir=None*)

Get list of installed packages and manifest packages

Generate: installed.pkgs.txt manifest.pkgs.txt

Parameters **cache** (*bool*) – whether to cache

Returns tuple of lists: (installed, manifest)

Note: adapted from: http://unix.stackexchange.com/a/3624

---

pkgsetcomp.pkgsetcomp.**import_apt**()

import apt

Returns apt module

Return type module

pkgsetcomp.pkgsetcomp.**main**()

pksetcomp main method (CLI)

pkgsetcomp.pkgsetcomp.**pkgsetcomp_packages_with_manifest**(*manifest_url*, *output_dir*)

Compare installed packages with manifest packages

Parameters

- **manifest_url** (*str*) – URL (or local path) to a debian/ubuntu .manifest
- **output_dir** (*str*) – directory in which to write .pkg.sh and pkg.txt files

Returns output of compare_package_lists

Return type PkgComparison

pkgsetcomp.pkgsetcomp.**read_lines**(*filename*)

Read and format lines of a file

Parameters **filename** (*str*) – path to file to open as read-only

Returns generator of lines

Note: this method is not unicode compatible

4.3 pkgsetcomp.pyrpo module

4.4 Module contents

pkgsetcomp module

CHAPTER 5

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:

5.1 Types of Contributions

5.1.1 Report Bugs

Report bugs at https://github.com/westurner/pkgsetcomp/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.

5.1.2 Fix Bugs

Look through the GitHub issues for bugs. Anything tagged with "bug" is open to whoever wants to implement it.

5.1.3 Implement Features

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

5.1.4 Write Documentation

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

5.1.5 Submit Feedback

The best way to send feedback is to file an issue at https://github.com/westurner/pkgsetcomp/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 :)

5.2 Get Started!

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

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

   ```
   $ git clone git@github.com:your_name_here/pkgsetcomp.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 pkgsetcomp
   $ cd pkgsetcomp/
   $ 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 pkgsetcomp 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.

5.3 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/pkgsetcomp/pull_requests and make sure that the tests pass for all supported Python versions.

5.4 Tips

To run a subset of tests:

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

CHAPTER 6

Credits

- Wes Turner – https://github.com/westurner

CHAPTER 7

History

7.1 0.1.4 (Unreleased)

7.2 0.1.3 (2014-05-21)

- BLD,TST,ENH,DOC: add py.test passthrough options to 'setup.py test'
- DOC: add pykg setcomp api docs to index
- DOC: docs/license.rst include LICENSE
- DOC: README.rst :: directive

7.3 0.1.2 (2014-05-21)

- BUG: VERSION.txt os.path.basename
- DOC: API docs: docs/modules.rst docs/pkgsetcomp.rst
- DOC: Release summaries in HISTORY.txt

7.4 0.1.1 (2014-05-21)

- ENH: Read version number from VERSION.txt

7.5 0.1.0 (2014-05-21)

- First release on PyPI.
- Re-packaged from https://github.com/westurner/dotfiles/blob/2813e4ad/scripts/compare_installed.py

CHAPTER 8

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CHAPTER 9

Indices and tables

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

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pkgsetcomp, **??**
pkgsetcomp.pkgsetcomp, **??**