# **Pyg Documentation**

Release 0.7.1

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Thanks to: Free Domain Name for the pyg-installer.co.nr hook.

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Source code http://github.com/rubik/pyg

Download http://pypi.python.org/pypi/pyg

Homepage http://pyg-installer.co.nr

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Pyg is a Python Package Manager that is meant to be an alternative to *easy\_install* and *Pip*. It can install, remove, bundle Python packages and much more.

**Note:** This is Pyg 0.7 documentation. Latest development docs are also available here: http://pyg.readthedocs.org/en/develop/

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# CHAPTER 1

Quickstart

# **Installing Pyg**

# The get-pyg.py file

The preferred way to install Pyg (and the easiest one) is to download the <code>get-pyg.py</code> file from Github and to launch it:

```
$ curl -0 https://raw.github.com/rubik/pyg/master/get-pyg.py
$ python get-pyg.py
```

This will install the latest stable release, but if you want to install the development version, just do:

```
$ python get-pyg.py --dev
```

# Using Pip or easy\_install

If you have easy\_install or Pip installed, to install Pyg it only takes one simple command:

```
$ pip install pyg
```

or if you must:

```
$ easy_install pyg
```

And then you should no longer need them!

# **Getting the source**

You can also install Pyg from source. The lastest release is avaiable on GitHub:

- tarball
- zipball

Once you have unpacked the archive you can install it easily:

```
$ python setup.py install
```

# **Building the documentation**

In order to build Pyg's documentation locally you have to install Sphinx:

```
$ pyg install sphinx
```

Download the source (see Getting the source), go to docs/ and run make:

```
$ cd docs/
```

\$ make html

Now Pyg's documentation is in \_build/html.

# CHAPTER 2

Overview

# Pyg's features

#### Pyg can:

- install packages from .tar.gz, .tar.bz2, .zip archives, as well as from .egg files and .pybundle files.
- Uninstall packages.
- Define fixed sets of requirement.
- Perform searches on PyPI.
- Install from binaries (e.g. from .exe or .msi) on Windows.
- Install packages in editable mode from VCS (Git, Mercurial, Bazaar, Svn).

#### Currently Pyg don't:

• understand Setuptools extras (like package [extra]). This is planned for Pyg 1.0.

# Pyg compared to easy\_install

Pyg is meant to be a replacement for easy\_install, and tries to improve it. In particular:

- It can install packages from a name, URL, local directory or file.
- It supports installation from requirements files.
- It can install packages from Pip's bundels.
- Easy yet very powerful uninstallation of packages.
- It can perform searches on PyPI.
- It offers the possibility to download a package without installing it.
- Source code concise and cohesive and easily extensible.

- Pyg can used either as a command-line tool or a Python library.
- The output on the console should be useful.

But at the moment Pyg does not do everything that easy\_install does:

• It does not support Setuptools extras (like package [extra]). This is planned for Pyg 1.0.

## Pyg compared to Pip

Pyg is very similar to Pip but tries to improve something. Specifically:

- Pyg uses the same installation method as Pip but a different package discovery system that should be faster.
- Pyg supports Python Eggs installation, while Pip doesn't.
- A better uninstallation of packages (Pip cannot install packages installed with python setup.py install).

In addition to that, Pyg is completely useable under vitualenvs.

#### **Uninstall**

Pyg can uninstall most installed packages with:

```
$ pyg uninstall packname
```

It tries to detect the directory where the packages have been installed and delete them. Pyg can uninstall all packages, except those that have been installed in editable mode.

See also: Uninstalling.

# Package upgrading

This is a feature unique to Pyg: by running pyg update you can check all your installed packages and upgrade those for which there is a newer release. Pyg collects all packages that can upgrade and then check for updates.

See also: Upgrading installed packages.

# Pyg and virtualenv

New in version 0.5.

From Pyg 0.5 onwards, virtualenv is completely supported. You can easily manage packages from inside it. A little example:

```
$ virtualenv env -p /usr/bin/python2.6 --no-site-packages
Running virtualenv with interpreter /usr/bin/python2.6
New python executable in env/bin/python2.6
Also creating executable in env/bin/python
Installing setuptools......done.
$ cd env
$ source bin/activate
(env)$ curl -0 https://github.com/rubik/pyg/raw/master/get_pyg.py
(env)$ python get_pyg.py
(env)$ pyg install sphinx
Looking for sphinx releases on PyPI
```

```
Best match: Sphinx==1.0.7
Downloading Sphinx
Checking md5 sum
Running setup.py egg_info for Sphinx
Running setup.py install for Sphinx
Installing dependencies...
Installing Jinja2>=2.2 (from Sphinx==1.0.7)
       Looking for Jinja2 releases on PyPI
        Best match: Jinja2==2.5.5
       Downloading Jinja2
        Checking md5 sum
        Running setup.py egg_info for Jinja2
        Running setup.py install for Jinja2
        Installing dependencies...
Installing Babel>=0.8 (from Jinja2==2.2)
       Looking for Babel releases on PyPI
        Best match: Babel==0.9.6
       Downloading Babel
       Checking md5 sum
        Running setup.py egg_info for Babel
        Running setup.py install for Babel
       Babel installed successfully
Finished installing dependencies
Jinja2 installed successfully
Installing docutils>=0.5 (from Sphinx==1.0.7)
        Looking for docutils releases on PyPI
        Best match: docutils==0.7
       Downloading docutils
        Checking md5 sum
        Running setup.py egg_info for docutils
        Running setup.py install for docutils
        docutils installed successfully
Installing Pygments>=0.8 (from Sphinx==1.0.7)
       Looking for Pygments releases on PyPI
        Best match: Pygments==1.4
        Downloading Pygments
        Checking md5 sum
        Running setup.py egg_info for Pygments
        Running setup.py install for Pygments
        Pygments installed successfully
Finished installing dependencies
Sphinx installed successfully
(env)$ python
Python 2.6.6 (r266:84292, Mar 25 2011, 19:24:58)
[GCC 4.5.2] on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>> import sphinx
>>> sphinx.__version__
'1.0.7'
>>>
(env) $ pyg remove sphinx
Uninstalling sphinx
        env/lib/python2.6/site-packages/Sphinx-1.0.7-py2.6.egg-info
        env/bin/sphinx-quickstart
        env/lib/python2.6/site-packages/sphinx
        env/bin/sphinx-build
        env/bin/sphinx-autogen
Proceed? (y/[n]) y
```

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```
Removing egg path from easy_install.pth... sphinx uninstalled succesfully
```

# **Pyg Shell**

You can launch Pyg Shell with:

```
$ pyg shell
```

and it will open a shell where you can use all Pyg's command. This is particularly useful on when you need root privileges to installs packages (e.g. Unix): if you need to execute many commands you can fire up the shell and then use Pyg without worrying about root privileges.

See also: Pyg Shell.

#### **Bundles**

Pyg supports Pip's bundles. The bundle format is specific to Pip (see Pip documentation). Once you have one you can install it like:

```
$ pyg install yourbundle.pyb
```

The internet access is not necessary. In addition to that, you can easily create bundles with Pyg. For example, if you want to create a bundle of Pyg, you would do:

```
$ pyg bundle pyg-bundle.pyb pyg
```

See also: Bundles.

#### **Packs**

New in version 0.7.

Packs are very similar to bundles, except that they can contain Python executables too. Packs were invented by Fabien Devaux for the Zicbee project (check it at PyPI: Zicbee).

A pack contains a folder in which there is an egg (with all necessary packages) and some Python executable files (run\_name.py). You can unpack the pack and then run the executables without touching the egg! Like a bundle, a pack does not require an internet connection to work: all required package are inside the zipped egg. The advantage of packs over bundles is that you can run included Python executables without installing the library, because everything necessary is included in the egg!

See also: Packs.

# CHAPTER 3

**Using Pyg** 

# Using Pyg from the command line

Pyg should be used mostly from the command line, as it requires root's privileges to install and remove packages.

On some systems (e.g. on Unix systems), you may need root privileges to execute some commands such as **install**, **uninstall**, or **upgrade**. In this case you should use the **sudo** command.

Main commands:

# Installing and removing packages

### Installing

To install a package, simply run:

```
$ pyg install package
```

package can be a number of things:

- the name of the package you want to install (e.g. pyg or sphinx)
- a package URL (e.g. http://www.example.org/path/to/mypackage-0.1.tar.gz)
- a local file (like path/to/mypackage-0.42-py2.7.egg)
- a local directory containing a setup.py file
- a repository URL (like git+git@github.com/rubik/pyg)
- a gist URL (i.e. gist+928471)

Pyg supports these file-types:

- .tar.gz
- .tgz

- .tar.bz2
- .zip
- .egg
- .exe
- .msi
- .pybundle
- .pyb (an abbreviation of Pip's bundle files)

#### -e <URL>, --editable <URL>

New in version 0.3.

Changed in version 0.7: Allow paths as arguments as well.

Install a package in editable mode (python setup.py develop) from an online repository. Supported VCS are:

- •Git (prefix git+)
- Mercurial (prefix hg+)
- •Bazaar (prefix bzr+)
- •Subversion (prefix svn+)

The URL syntax is as follows:

```
<prefix><repo_url>#egg=<package_name>
```

All fields are required. The last part (#egg=<package\_name>) specifies the package name.

You can run it with a path as well. Actually, this:

```
$ pyg install -e path/to/a/directory
...
```

is equivalent to:

```
$ cd path/to/a/directory
$ python setup.py develop
```

#### --no-script

New in version 0.3.

Do not install packages' scripts.

#### --no-data

New in version 0.3.

Do not install packages' data files.

-r <path>, --req-file <path>

Install packages from the specified requirement file:

```
$ pyg install -r requirements.txt
```

See also: Freezing requirements

#### -U, --upgrade

New in version 0.2.

If the package is already installed, install it again. For example, if you have installed pypol\_ v0.4:

```
$ pyg install pypol_==0.4
Best match: pypol_==0.4
Downloading pypol_
Checking md5 sum
Running setup.py egg_info for pypol_
Running setup.py install for pypol_
pypol_ installed successfully
```

Later you may want to re-install the package. Instead of running **remove** and then **install**, you can use the -U option:

```
$ pyg install -U pypol_
Best match: pypol_==0.5
Downloading pypol_
Checking md5 sum
Installing pypol_ egg file
pypol_ installed successfully
```

This command **does not** upgrade dependencies (see *install* -A).

#### -A, --upgrade-all

New in version 0.5.

Like, install --upgrade, but upgrade dependencies too.

#### -n, --no-deps

Do not install package's dependencies.

```
-i <url>, --index-url <url>
```

Specify the base URL of Python Package Index (default to http://pypi.python.org/pypi).

```
-d <path>, --install-dir <path>
```

The base installation directory for all packages.

#### -u, --user

Install the package in the user site-packages.

#### Uninstalling

Changed in version 0.5: Replaced uninstall and rm with remove.

Removing a package is dead simple:

```
$ pyg remove packname
```

Pyg tries to detect the package's folder and delete it:

If packname is a module and not a package, Pyg will automatically detect it:

```
$ pyg remove roman
Uninstalling roman
    /usr/local/lib/python2.7/dist-packages/roman.pyc
    /usr/local/lib/python2.7/dist-packages/roman.py
Proceed? (y/[n])
```

#### If your answer is *yes* the files will be deleted. This operation is **not undoable**:

#### -y, --yes

Do not ask confirmation of uninstall deletions:

```
$ pyg remove -y iterutils
Uninstalling iterutils

/usr/local/lib/python2.7/dist-packages/iterutils.py
/usr/local/lib/python2.7/dist-packages/iterutils-0.1.6.egg-info
/usr/local/lib/python2.7/dist-packages/iterutils.pyc

Deleting: /usr/local/lib/python2.7/dist-packages/iterutils.py...

Deleting: /usr/local/lib/python2.7/dist-packages/iterutils-0.1.6.egg-info...

Deleting: /usr/local/lib/python2.7/dist-packages/iterutils.pyc...

Removing egg path from easy_install.pth...
iterutils uninstalled succesfully
```

#### -r <path>, --req-file <path>

Uninstall all the packages listed in the given requirement file.

```
$ echo -e 'itertools_recipes\niterutils' > reqfile.txt
$ cat reqfile.txt
itertools_recipes
iterutils
```

```
$ pyg remove -r regfile.txt
Uninstalling itertools_recipes
        /usr/local/lib/python2.7/dist-packages/itertools_recipes.py
        /usr/local/lib/python2.7/dist-packages/itertools_recipes.pyc
        /usr/local/lib/python2.7/dist-packages/itertools_recipes-0.1.egg-info
Proceed? (y/[n]) y
Deleting: /usr/local/lib/python2.7/dist-packages/itertools_recipes.py...
Deleting: /usr/local/lib/python2.7/dist-packages/itertools_recipes.pyc...
Deleting: /usr/local/lib/python2.7/dist-packages/itertools_recipes-0.1.egg-info...
Removing egg path from easy_install.pth...
itertools_recipes uninstalled successfully
Uninstalling iterutils
        /usr/local/lib/python2.7/dist-packages/iterutils.py
        /usr/local/lib/python2.7/dist-packages/iterutils-0.1.6.egg-info
        /usr/local/lib/python2.7/dist-packages/iterutils.pyc
Proceed? (y/[n]) y
Deleting: /usr/local/lib/python2.7/dist-packages/iterutils.py...
Deleting: /usr/local/lib/python2.7/dist-packages/iterutils-0.1.6.egg-info...
```

```
Deleting: /usr/local/lib/python2.7/dist-packages/iterutils.pyc...
Removing egg path from easy_install.pth...
iterutils uninstalled successfully
```

You can supply both packname (one or more) and requirement files:

```
$ pyg remove -r reafile.txt docutils
Uninstalling itertools_recipes
        /usr/local/lib/python2.7/dist-packages/itertools_recipes.py
        /usr/local/lib/python2.7/dist-packages/itertools_recipes.pyc
        /usr/local/lib/python2.7/dist-packages/itertools_recipes-0.1.egg-info
Proceed? (y/[n]) y
Deleting: /usr/local/lib/python2.7/dist-packages/itertools_recipes.py
Deleting: /usr/local/lib/python2.7/dist-packages/itertools_recipes.pyc
Deleting: /usr/local/lib/python2.7/dist-packages/itertools_recipes-0.1.egg-info
Removing egg path from easy_install.pth...
itertools_recipes uninstalled successfully
Uninstalling iterutils
        /usr/local/lib/python2.7/dist-packages/iterutils.py
        /usr/local/lib/python2.7/dist-packages/iterutils-0.1.6.egg-info
        /usr/local/lib/python2.7/dist-packages/iterutils.pyc
Proceed? (y/[n]) y
Deleting: /usr/local/lib/python2.7/dist-packages/iterutils.py
Deleting: /usr/local/lib/python2.7/dist-packages/iterutils-0.1.6.egg-info
Deleting: /usr/local/lib/python2.7/dist-packages/iterutils.pyc
Removing egg path from easy_install.pth...
iterutils uninstalled successfully
Uninstalling docutils
       /usr/local/lib/python2.7/dist-packages/docutils
        /usr/local/lib/python2.7/dist-packages/docutils-0.7.egg-info
Proceed? (y/[n]) y
Deleting: /usr/local/lib/python2.7/dist-packages/docutils
Deleting: /usr/local/lib/python2.7/dist-packages/docutils-0.7.egg-info
Removing egg path from easy_install.pth...
docutils uninstalled successfully
```

Note: You can remove Pyg either with pyg remove pyg or pyg remove yourself.

New in version 0.5.

# Requirement files and bundles

#### Freezing requirements

Changed in version 0.7: From Pyg 0.7 onwards, this command has been renamed pyg site.

When you launch:

```
$ pyg site
```

Pyg tries to detect all installed packages and prints requirements on Standard Output:

```
# Python version: '2.7.1+ (r271:86832, Apr 11 2011, 18:05:24) \n[GCC 4.5.2]'
# Python version info: '2.7.1.final.0'
# Python Prefix: '/usr'
```

```
# Platform: 'linux-i686'
# Pyg version: '0.6'

Brlapi==0.5.5
BzrTools==2.3.1
Cython==0.14.1
...
wadllib==1.1.8
wsgi-intercept==0.4
wsgiref==0.1.2
xkit==0.0.0
zope.interface==3.6.1
```

Note that the first lines – information about the site – are commented, so that if they're written into a requirement file, they will be ignored.

```
-f <path>, --file <path>
```

Write requirements into the specified file. Equivalent to:

```
$ pyg site > reqfile.txt
```

#### -c, --count

Return the number of installed packages:

```
$ pyg site -c
55
```

#### -n, --no-info

Do not add site information:

```
$ pyg site -n
Brlapi==0.5.5
BzrTools==2.3.1
Cython==0.14.1
...
wadllib==1.1.8
wsgi-intercept==0.4
wsgiref==0.1.2
xkit==0.0.0
zope.interface==3.6.1
```

#### **Bundles**

The bundle format is specific to Pip (see Pip documentation). To create a bundle do:

```
$ pyg bundle app.pyb package_name
```

This will download all packages (including dependencies) and put them in a bundle file. Install packages from a bundle is dead simple, and you don't need internet access:

```
$ pyg install app.pyb
```

For example, here is Pyg bundle:

```
$ pyg bundle pyg.pyb pyg
pyg:
```

```
Retrieving data for pyg [100% - 472.3 Kb / 472.3 Kb]
        Writing data into pyg-0.6.tar.gz
        pvg downloaded successfully
        Looking for pyg dependencies
                Found: setuptools
                Found: pkgtools>=0.4
                Found: argh>=0.14
argh>=0.14:
        Retrieving data for argh [100% - 11.4 Kb / 11.4 Kb]
        Writing data into argh-0.14.0.tar.gz
        argh downloaded successfully
        Looking for argh>=0.14 dependencies
pkgtools>=0.4:
        Retrieving data for pkgtools [100% - 28.7 Kb / 28.7 Kb]
        Writing data into pkgtools-0.6.tar.gz
        pkgtools downloaded successfully
       Looking for pkgtools>=0.4 dependencies
setuptools:
        Retrieving data for setuptools [100% - 250.8 Kb / 250.8 Kb]
        Writing data into setuptools-0.6c11.tar.gz
        setuptools downloaded successfully
       Looking for setuptools dependencies
Finished processing dependencies
Adding packages to the bundle
Adding the manifest file
```

You can download the generated example bundle here (direct link to download).

```
-r <path>, --req-file <path>
```

New in version 0.5.

Specify requirement files containing packages to add. This option can be repeated many times:

```
$ pyg bundle bundlename.pybundle -r myreqs.txt -r other_reqs ...
```

```
-e <requirement>, --exclude <requirement>
```

New in version 0.5.

Specify packages to exclude from the bundle (can be repeated many times):

```
$ pyg bundle pyg.pyb pyg -e argh -e "pkgtools<=0.3"
```

#### -d, --use-develop

New in version 0.7.

If specified, for every package look for a local (*develop*) package. If it does not find it, it will download it from PyPI:

```
Writing data into argh-0.14.0.tar.gz
        argh downloaded successfully
        Looking for argh dependencies
pkgtools>=0.6.1:
        Looking for a local package...
        Looking for pkgtools>=0.6.1 dependencies
setuptools:
        Looking for a local package...
        Cannot find the location of setuptools
        Retrieving data for setuptools [100% - 250.8 Kb / 250.8 Kb]
       Writing data into setuptools-0.6c11.tar.gz
       setuptools downloaded successfully
        Looking for setuptools dependencies
Finished processing dependencies
Adding packages to the bundle
Adding the manifest file
```

#### **Packs**

New in version 0.7.

Packs are zip files containing an egg (which includes all necessary packages) and some Python executable files (run\_name.py). The **pack** command has the following syntax:

```
pyg pack {packname} {package} [{options}, ...]
```

Its name can either have the .zip extension or not, and can be a path.

You can create a pack with the following command:

```
$ pyg pack pyg.zip pyg
Generating the bundle...
pyg:
        Retrieving data for pyg [100% - 472.3 Kb / 472.3 Kb]
        Writing data into pyg-0.6.tar.gz
        pyg downloaded successfully
        Looking for pyg dependencies
                Found: setuptools
                Found: pkgtools>=0.4
                Found: argh>=0.14
argh>=0.14:
        Retrieving data for argh [100% - 11.4 Kb / 11.4 Kb]
        Writing data into argh-0.14.0.tar.gz
        argh downloaded successfully
        Looking for argh>=0.14 dependencies
pkgtools>=0.4:
        Retrieving data for pkgtools [100% - 27.2 Kb / 27.2 Kb]
        Writing data into pkgtools-0.6.1.tar.gz
        pkgtools downloaded successfully
        Looking for pkgtools>=0.4 dependencies
setuptools:
        Retrieving data for setuptools [100% - 250.8 Kb / 250.8 Kb]
        Writing data into setuptools-0.6c11.tar.gz
        setuptools downloaded successfully
       Looking for setuptools dependencies
Finished processing dependencies
```

```
Adding packages to the bundle Generating EGG-INFO...
```

For example, Pyg Pack has the following structure:

```
pyg-0.6
    - pyg.egg
    - run_easy_install-2.3.py
    - run_easy_install.py
    - run_pyg.py
```

As you can see, there are already some executable files (Pyg looks for them in the packages' entry\_points.txt file) and you can run them without installing Pyg: everything necessary is in pyg.egg. Amazing!

If you want to try it, download it here (direct link to download), unpack it and run the run\_pyg.py file. You will be able to use Pyg without installing it!

```
$ pyg pack pyg.zip pyg -e argh -e "pkgtools<=0.3"
```

**Warning:** If you exclude some packages from the pack it is very likely that its executables will not work, without some dependencies.

#### -d, --use-develop

If specified, for every package look for a local (*develop*) distribution. If it does not find it, it will download it from PvPI.

On certain systems (probably Unix-like ones) the **pack** command with this option enabled may require root privileges, because Pyg will run the **sdist** command (python setup.py sdist) for every local distribution.

(See also bundle -d.)

# Upgrading, downloading and Pyg Shell

#### Upgrading installed packages

New in version 0.3.

When you use the update command, Pyg searches through all installed packages and checks for updates. If there are some, Pyg installs them.

Before loading the entire list of installed packages, Pyg checks the ~/.pyg/installed\_packages.txt file. If it exists Pyg will update only packages in that file:

```
$ pyg update
Cache file not found: $HOME/.pyg/installed_packages.txt
Loading list of installed packages...
15 packages loaded
Searching for updates
A new release is avaiable for simplejson: 2.1.5 (old 2.1.3)
Do you want to upgrade? (y/[n]) y
Upgrading simplejson to 2.1.5
```

```
Installing simple; son-2.1.5.tar.gz...
            Installing simplejson-2.1.5.tar.gz
            Running setup.py egg_info for simplejson
            Running setup.py install for simplejson
            simplejson installed successfully
Updating finished successfully
$ pyg update
Loading list of installed packages...
Reading cache...
15 packages loaded
Searching for updates
A new release is avaiable for wadllib: 1.2.0 (old 1.1.8)
Do you want to upgrade? (y/[n]) n
wadllib has not been upgraded
A new release is avaiable for launchpadlib: 1.9.8 (old 1.9.7)
Do you want to upgrade? (y/[n]) n
launchpadlib has not been upgraded
Updating finished successfully
```

### **Downloading packages**

New in version 0.2.

If you only need to download a package you can use the download command:

```
$ pyg download packname
```

If the requirement is not satisfied Pyg won't download anything:

```
$ pyg download pyg==1024
E: Did not find files to download
```

#### -u, --unpack

After downloading a package, Pyg unpacks it:

```
$ pyg download -u pypol_
Found egg file for another Python version: 2.6. Continue searching...
Retrieving data for pypol_
Writing data into pypol_-0.5-py2.7.egg
pypol_ downloaded successfully
Unpacking pypol_-0.5-py2.7.egg to ./pypol_-0.5-py2.7
$ 1
pypol_-0.5-py2.7/ pypol_-0.5-py2.7.egg
```

### -d <path>, --download-dir <path>

Where to download the package, default to . (current working directory):

```
$ pyg download -d /downloads/python_downloads/ pyg
```

If the path does not exist, Pyg will create it.

```
-p <ext>, --prefer <ext>
```

The preferred file type for the download. Pyg looks for that file type and, if it does not exists, will try another

#### extension:

```
$ pyg download -p .tar.gz pyg
Retrieving data for pyg
Writing data into pyg-0.1.tar.gz
pyg downloaded successfully

$ pyg download -p .egg pyg
Retrieving data for pyg
Writing data into pyg-0.1-py2.7.egg
pyg downloaded successfully

$ pyg download -p .myawesomeext pyg
Retrieving data for pyg
Writing data into pyg-0.1-py2.7.egg
pyg downloaded successfully
```

### **Pyg Shell**

New in version 0.4.

If you need to execute many Pyg commands and you need root privileges (for example on Unix systems), you can fire up Pyg Shell and you are done:

```
$ pyg shell
```

Now you can use all Pyg's commands plus 3 shell commands: **cd**, **pwd**, and **1s**:

```
pyg:/home/user$ check pyg
True
pyg:/home/user$ check pyg==0.3.2
True
pyg:/home/user$ ls
pkqtools pyq
pyg:/home/user$ pwd
/home/user
pyg:/home/user$ cd pyg
pyg:/home/user/pyg$ pwd
/home/user/pyg
pyg:/home/user/pyg$ install sphinx
sphinx is already installed
pyg:/home/user/pyg$ install -U sphinx
sphinx is already installed, upgrading...
Looking for sphinx releases on PyPI
Best match: Sphinx==1.0.7
Downloading Sphinx
Checking md5 sum
Running setup.py egg_info for Sphinx
Running setup.py install for Sphinx
Installing dependencies...
    Jinja2>=2.2 is already installed
    docutils>=0.5 is already installed
    Pygments>=0.8 is already installed
Finished installing dependencies
Sphinx installed successfully
pyg:/home/user/pyg$ cd
pyg:/home/user$ exit
```

Minor commands:

#### Some minor stuff

#### The list command

You can use this command to list all package's avaiable versions:

```
$ pyg list pypol_
0.5 installed
0.4
0.3
0.2

$ pyg list itertools_recipes
0.1
```

If that package is installed, Pyg will add installed after the current version.

#### Checking installed packages

If you want to check if a package is installed, you can use the check command:

```
$ pyg check packname
```

#### Some examples:

```
$ pyg check pyg
True
$ pyg check pyg==42
False
$ pyg check pyg==0.1.2
True
$ pyg check pyg==0.1.3
False
```

#### Searching PyPI

Pyg can perform searches on PyPI with the search command:

```
$ pyg search pypol_
pypol_ 0.5 - Python polynomial library
pypolkit 0.1 - Python bindings for polkit-grant

$ pyg search distribute
distribute 0.6.15 - Easily download, build, install, upgrade, and uninstall Python_
→packages
virtualenv-distribute 1.3.4.4 - Virtual Python Environment builder
```

#### **Linking directories**

If you want to add a directory to PYTHONPATH permanently the link command is what you need:

```
$ pyg link dirname
```

When you link a directory Pyg add in a .pth file the dir's path.

#### **Unlinking**

If you want to remove a directory from PYTHONPATH you can use the unlink command. Pyg can remove a directory from PYTHONPATH only if that directory has been added previously.

```
-a, --all
```

Remove all links in the .pth file.

Other stuff:

# Pyg's config files

New in version 0.4.

Config files allow you to override command-line options, and to save them somewhere. During the initialization process, Pyg looks for configurations file, it this order:

- ./pyg.conf: a configuration file in the current working directory:
- ~/pyg.conf: where ~ stands for your HOME directory;
- ~/.pyg/pyg.conf.

A config file has this structure:

```
[section_name]
option = value

[section_name2]
option1 = value1
option2 = value2
...
```

In addition to this, Pyg supports a nonstandard syntax, allowing multiple section names in a single header:

```
[section1 & section2 & section6]
option = value
```

It will set that option in all specified sections.

Note: If you set an option to False, false, or 0, Pyg will consider it as false.

## The global section

New in version 0.7.

This section is a special one: there is no global command, and it refers to Pyg's global options. At the moment there is only one global option: --no-colors. You can set it as follows:

```
[global]
no_colors = True
```

#### **Example usage**

#### **Example 1**

~/pyg.conf:

```
[remove]
yes = True

[install]
upgrade_all = True
```

#### Pyg:

```
$ pyg install iterutils
Loading options from ~/pyg.conf
iterutils is already installed, upgrading...
Looking for iterutils releases on PyPI
Best match: iterutils==0.1.6
Downloading iterutils [100% - 2.9 Kb]
Checking md5 sum
Running setup.py egg_info for iterutils
Running setup.py install for iterutils
iterutils installed successfully
$ pyg remove iterutils
Loading options from ~/pyg.conf
Uninstalling iterutils
        /usr/local/lib/python2.7/dist-packages/iterutils.py
       /usr/local/lib/python2.7/dist-packages/iterutils.pyc
       /usr/local/lib/python2.7/dist-packages/iterutils-0.1.6-py2.7.egg-info
Deleting: /usr/local/lib/python2.7/dist-packages/iterutils.py
Deleting: /usr/local/lib/python2.7/dist-packages/iterutils.pyc
Deleting: /usr/local/lib/python2.7/dist-packages/iterutils-0.1.6-py2.7.egg-info
Removing egg path from easy_install.pth...
iterutils uninstalled successfully
```

#### **Example 2**

~/pyg.conf:

```
[freeze]
count = True
```

#### Pyg:

```
$ pyg freeze
Loading options from ~/pyg.conf
84
```

### Example 3

You can also override saved options from the command line. pyg.conf:

```
[install]
index_url = http://pypi.python.org/pypi
```

#### Pyg:

#### instead of:

```
$ pyg install -U itertools_recipes
itertools_recipes is already installed, upgrading...
Looking for itertools_recipes releases on PyPI
Best match: itertools_recipes==0.1
Downloading itertools_recipes [100% - 2.3 Kb]
Checking md5 sum
Running setup.py egg_info for itertools_recipes
Running setup.py install for itertools_recipes
itertools_recipes installed successfully
```

#### **Option tree**

Here is a list of all sections and their default options:

#### global:

• no\_colors = False

#### install:

- upgrade = False
- *upgrade\_all* = False
- $no\_deps = False$
- index\_url = http://pypi.python.org/pypi
- install\_dir = pyg.locations.INSTALL\_DIR
- user = False
- no\_scripts = False
- *ignore* = False

### remove:

• yes = False

#### bundle:

• exclude = None

### update:

• yes = False

# download:

- unpack = False
- $download\_dir = .$
- prefer = None

#### freeze:

- *count* = False
- file = None

# unlink:

• *all* = False

# CHAPTER 4

# Development

# **CHANGELOG**

# 1.0 (planning)

- #69: Write tests. We haven't chosen the test framework to use yet.
- #70: Upgrade pyg.req.Requirement to honor setuptools extras.

# 0.8 (in development)

#### To fix:

- #78: Allow installing packages from dev version: pyg==dev.
- #79: Allow requirements with multiple version specification: pyg==0.4, ==0.8.
- #80: Add a new method: pyg.log.Logger.ask().
- #81: Read ~/.pypirc file.
- #82: Allow comments in Pyg's configuration files.
- #83: Add support for environment variables like PYG\_CONFIG\_FILE or PYG\_HOME.
- #95: Add TAB autocompletion for Unix shells.
- #96: Add an argv= keyword argument to pyg.main() function.
- #97: Optimize uninstaller file deletion.

# 0.7.1 (July 25, 2011)

• Fixed a serious bug in the pack command.

## 0.7 (July 16, 2011)

#### **Bugs fixed**

- #59: Solved pyg.web.LinkFinder issue once and for all.
- #62: pyg bundle failed when it did not find links on PyPI. Thanks to Fabien Devaux.
- #63: Pyg could not install packages which use distutils instead of setuptools. Thanks to Fabien Devaux.
- #64: Fixed pyg install --user.
- #66: pyg install -d {dir} could be ineffective.
- #73: Sometimes the **search** did not find anything (even if the package really exists).
- #74: Fixed VCS install error.
- #94: Error when bundling same packages.

#### Features added

- #57: Created an installer, like Pip's get-pip.py. You can grab it here: https://raw.github.com/rubik/pyg/master/get-pyg.py
- #58: Added a pygx.y program (where x.y is Python current version), in addition to pyg.
- #68: Now you can install local directories in development mode with the *install* -e option.
- #72: Default argparse help is incomplete: wrote Pyg's own HelpFormatter.
- #72b: Added colored output.
- #76: Allow installing eggs which requires a different Python installation (added an install --force-egg-install option).
- #77: Improved uninstaller's file-detection.
- #90: Now it is possible to create Packs: see *Packs*.
- #91: Replaced pyg freeze with pyg site.
- #92: Now it is possible to bundle local packages.

#### 0.6 (May 15, 2011)

- #40: Now Pyg can install packages from URL even if the URL does not end with a file-extension.
- #44: Added a install --ignore option.
- #45: Replaced pkgtools.WorkingSet with pkg\_resources.working\_set in pyg.inst. Updater.
- #46: Added two new global command-line option: -d, --debug and --verbose.
- #47: The Updater is now faster and searches links on http://pypi.python.org/simple too.
- #48: Implement a special uninstallation system for pyg.inst.Updater.
- #53: Show download progress.
- #55: You can install packages from Github Gists!

# 0.5.2 (May 05, 2011)

• Fixed package installation from VCS.

### 0.5.1 (May 05, 2011)

• Fixed setup.py: added the zip-safe flag.

# 0.5 (May 05, 2011)

- #29: Create bundles from requirements files.
- #30: Keep track of why requirements are needed.
- #31: Replace uninstall and rm with a new remove command.
- #32: Follow links in dependency\_links.txt file.
- #33: Fix option --index-url.
- #34: pyg remove yourself.
- #36: Add virtualenv support.
- #38: Add -A, --upgrade-all option for the install command.
- #39: Add -e, --exclude option for the bundle command.

# 0.4.1 (May 01, 2011)

• Fixed an issue with the subprocess module.

### 0.4 (May 01, 2011)

- #19: Added pyg.inst.Bundler: now Pyg can create bundles!
- #20: Installation from binaries (on Windows).
- #22: Support a config file somewhere.
- #25: Link following: when a package does not have any file on PyPI, Pyg have to follow links (e.g. package's home page, etc.) to find download links.
- #26: Added Pyg Shell.

### 0.3.2 (Apr 29, 2011)

• Fixed setup.py: didn't create Eggs properly.

# 0.3.1 (Apr 22, 2011)

• Fixed setup.py: Setuptools didn't save requirements correctly.

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# 0.3 (Apr 18, 2011)

- #9: Added the **update** command.
- #11: Added VCS support.
- #12: Command-line options in requirement file are allowed.
- #16: Added the --no-scripts and --no-data options to the install command.
- #17: Added the possibility to install packages from directories.
- #23: Comments in requirement file are allowed.
- Added pyg.inst.Updater.
- Added a new file for the command-line options parser.

# 0.1.2 (Mar 26, 2011)

- #6: Added a download command.
- Added several options to the command-line parser.
- Fixed some strange behavior of pyg.req.Requirement.install().

#### 0.1.1

- #2: pyg.inst.Installer now download dependencies.
- #4: Make pyg.types.Egg installing entry points.
- #5: Fixed pyg.inst.Uninstaller.

### 0.1 (Mar 24, 2011)

• First release.

#### **Symbols** -u, –unpack download command line option, 18 -no-data install command line option, 10 install command line option, 11 -no-script install command line option, 10 remove command line option, 12 -A, -upgrade-all install command line option, 11 В -U, -upgrade bundle command line option install command line option, 10 -d, -use-develop, 15 -a, -all -e <requirement>, -exclude <requirement>, 15 unlink command line option, 21 -r <path>, -req-file <path>, 15 -c, -count site command line option, 14 D -d <path>, -download-dir <path> download command line option, 18 download command line option -d <path>, -install-dir <path> -d <path>, -download-dir <path>, 18 install command line option, 11 -p <ext>, -prefer <ext>, 18 -d, -use-develop -u, -unpack, 18 bundle command line option, 15 F pack command line option, 17 -e <URL>, -editable <URL> environment variable install command line option, 10 HOME, 21 -e <requirement>, -exclude <requirement> PYG CONFIG FILE, 25 bundle command line option, 15 PYG HOME, 25 pack command line option, 17 PYTHONPATH, 20, 21 -f <path>, -file <path> Η site command line option, 14 -i <url>, -index-url <url> HOME, 21 install command line option, 11 -n, -no-deps install command line option, 11 install command line option -n, -no-info -no-data, 10 site command line option, 14 -no-script, 10 -p <ext>, -prefer <ext> -A, –upgrade-all, 11 download command line option, 18 -U, -upgrade, 10 -r <path>, -req-file <path> -d <path>, -install-dir <path>, 11 bundle command line option, 15 -e <URL>, -editable <URL>, 10 install command line option, 10 -i <url>, -index-url <url>, 11 remove command line option, 12 -n, -no-deps, 11

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