

# Using Python Packages

## An Overview

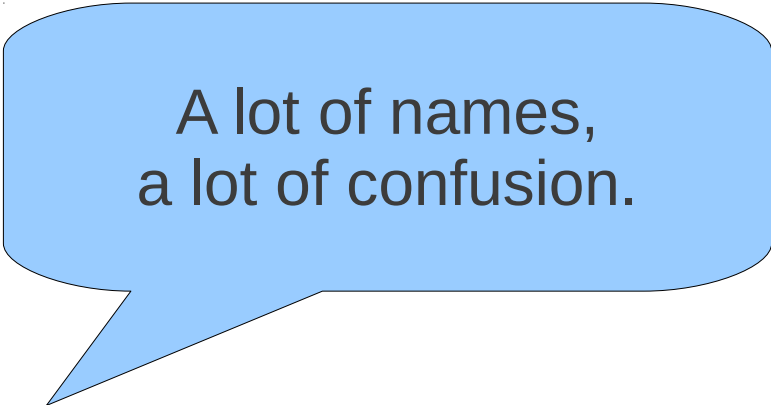
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# Using Python Packages

## An Overview

- distutils
- Setuptools
  - easy\_install
- Distribute
- pip
- virtualenv
- virtualenvwrapper

???



A lot of names,  
a lot of confusion.

# distutils

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

- allows building and installing modules
- part of standard library since Python 1.6
- no uninstalling or listing of packages
- no dependency handling

# setuptools

```
$ easy_install MyPackage
```

- created by Phillip J. Eby
- enhancements to distutils
- handles dependencies
- introduces egg files
- download packages from PyPI
- no uninstalling of packages
- currently unmaintained

# Distribute

- created by the The fellowship of the packaging
- fork of setuptools
- drop-in replacement
- actively maintained
- support for Python 3

# Pip

- written by Ian Bicking
- stands for Pip Installs Python
- replacement for `easy_install`
- uninstallation of packages
- requirements files
- native support for other VCS
- no eggs!

# Pip Commands

- `install`: Install packages
- `uninstall`: Uninstall packages
- `freeze`: Output all currently installed packages
- `search`: Search PyPI
- `bundle`: Create pybundles
- `help`: Show available commands
- `unzip`: Unzip individual packages
- `zip`: Zip individual packages

# Searching

```
$ pip search django
```

```
django-gencal          - django-gencal is a reusable Djan
emencia.django.downloader - Downloader app like dl.free.fr i
django-voting          - Generic voting application for D
django-composition     - `django-composition` provides th
django-invitation      - Built on top of django-registrat
...
django-cnotes          - Django cnotes provides a simple
django_messages_framework - Backport of django (dev)'s messa
blogango               - A django based blog
django-fancy-autocomplete - A simple AJAX autocomplete helpe
```



# Freezing & Requirements files

```
$ pip freeze  
Brlapi==0.5.5  
CouchDB==0.6  
Couchapp==0.7.2  
GnuPGInterface==0.3.2  
GoldenRatio==1.0.0  
Jinja2==2.5.5  
Mako==0.3.4  
MarkupSafe==0.9.2  
PAM==0.4.2  
PIL==1.1.7  
...
```

# Freezing & Requirements files

```
$ pip freeze > requirements.txt
```

```
$ pip -r requirements.txt
```

# Virtualenv

- written by Ian Bicking
- creates isolated Python environments

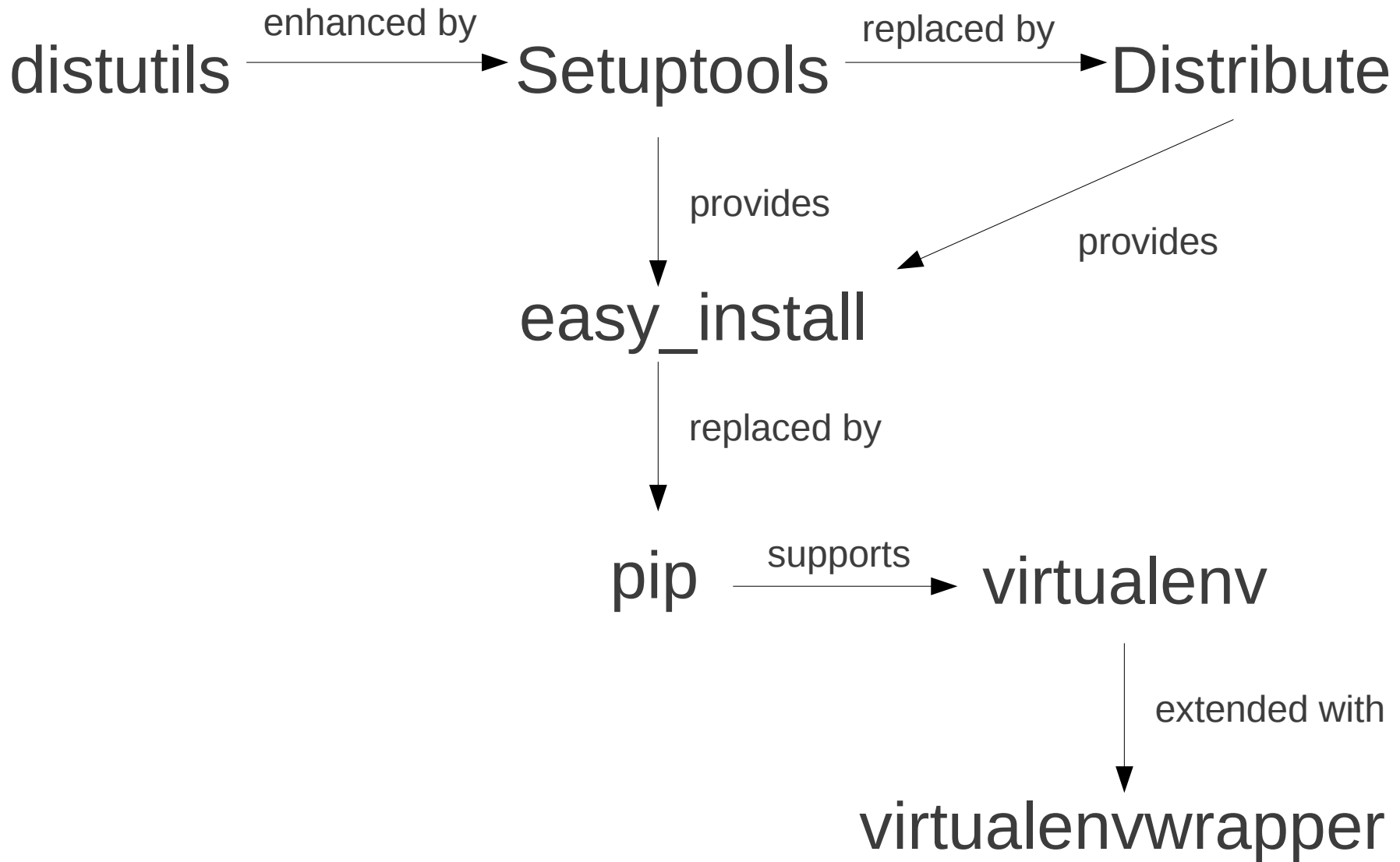
```
$ virtualenv ENV
```

- creates `ENV/lib/pythonX.Y/site-packages`
- install interpreter in `ENV/bin/python`
- installs Setuptools, `--distribute` installs Distribute
- no site packages with `--no-site-packages`
- activate with `. bin/activate`

# virtualenvwrapper

- written by Doug Hellmann
- set of extensions to virtualenv
- puts environments in one place
- easy switching between environments
- hook scripts

# Summary



# References

- distutils documentation  
<http://docs.python.org/library/distutils.html>
- setuptools on Python Package Index  
<http://pypi.python.org/pypi/setuptools>
- Distribute documentation  
<http://packages.python.org/distribute/>
- Pip documentation  
<http://pip.openplans.org/>

# References (cont.)

- virtualenv documentation

<http://virtualenv.openplans.org/>

- virtualenvwrapper homepage

<http://www.doughellmann.com/projects/virtualenvwrapper/>

- “Der Eierkocher”, talk by Chris Arndt (German)

<http://chrisarndt.de/talks/cooking-eggs/cooking-eggs-vortrag.html>