

Python Eggs For NOOBs and Others

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What Are Python Eggs?

Managed distributions of python packages:

- a) **Discovery within repositories,**
- b) **Dependency resolution,**
- c) **Automated download and install,**
- d) **Version management,**
- e) **Package uninstall,**
- f) **Package upgrade**



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How Are Python Eggs Managed?

With a new package called `setuptools`:

- a) Based on `distutils`,
- b) From **PEAK**,
- c) A lot like `yum` for Linux,
- d) Subpackages:
 - i) `easy_install`,
 - ii) `pkg_resources`
- e) Download `ez_setup.py`



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How Do I Install setuptools?

- a) `wget http://peak.telecommunity.com/dist/ez_setup.py,`
- b) `python ez_setup.py.`

ez_setup.py contains the setuptools bootstrap code which can also be used by your package distribution, even distutils distributions, to install setuptools.



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What Just Happened?

```
Downloading http://cheeseshop.python.org/packages/2.4/s/setuptools/setuptools-0.6a10-py2.4.egg
Processing setuptools-0.6a10-py2.4.egg
creating c:\python24\lib\site-packages\setuptools-0.6a10-py2.4.egg
Extracting setuptools-0.6a10-py2.4.egg to c:\python24\lib\site-packages
Adding setuptools 0.6a10 to easy-install.pth file
Installing easy_install-script.py script to C:\Python24\Scripts
Installing easy_install.exe script to C:\Python24\Scripts

Installed c:\python24\lib\site-packages\setuptools-0.6a10-py2.4.egg
Processing dependencies for setuptools==0.6a10
Setuptools version 0.6a10 or greater has been installed.
(Run "ez_setup.py -U setuptools" to reinstall or upgrade.)
```



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How Do I Install an Egg?

easy_install docutils

```
Searching for docutils
Reading http://www.python.org/pypi/docutils/
Reading http://docutils.sourceforge.net/
Best match: docutils 0.4
Downloading http://150.65.7.130/sourceforge/docutils/docutils-0.4.tar.gz
Processing docutils-0.4.tar.gz
Running docutils-0.4\setup.py -q bdist_egg --dist-dir c:\docume~1\cbcoasis\locals~1\temp\easy_install-9vfcba\docutils-0.4\egg-dist-tmp-_wb2bq
"optparse" module already present; ignoring extras/optparse.py.
"textwrap" module already present; ignoring extras/textwrap.py.
zip_safe flag not set; analyzing archive contents...
docutils.parsers.rst.directives.misc: module references __file__
docutils.writers.html4css1.__init__: module references __file__
docutils.writers.newlatex2e.__init__: module references __file__
docutils.writers.pep_html.__init__: module references __file__
docutils.writers.s5_html.__init__: module references __file__
Adding docutils 0.4 to easy-install.pth file
Installing rst2html.py script to C:\Python24\Scripts
Installing rst2latex.py script to C:\Python24\Scripts
Installing rst2newlatex.py script to C:\Python24\Scripts
Installing rst2pseudoxml.py script to C:\Python24\Scripts
Installing rst2s5.py script to C:\Python24\Scripts
Installing rst2xml.py script to C:\Python24\Scripts

Installed c:\python24\lib\site-packages\docutils-0.4-py2.4.egg
Processing dependencies for docutils
```



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What Was That?

`easy_install epydoc`

```
Searching for epydoc
Reading http://www.python.org/pypi/epydoc/
Reading http://epydoc.sourceforge.net
Reading http://sourceforge.net/project/showfiles.php?group_id=32455
Best match: epydoc 2.1
Downloading http://66.35.250.221/sourceforge/epydoc/epydoc-2.1.win32.exe
Processing epydoc-2.1.win32.exe
epydoc.imports: module references __path__
epydoc.objdoc: module references __file__
epydoc.objdoc: module references __path__
epydoc.uid: module references __file__
epydoc.uid: module references __path__
epydoc.test.__init__: module references __file__
creating 'c:\docume~1\cbcoasis\locals~1\temp\easy_install-tmlwyw\epydoc-2.1-py2.4-win32.egg' and adding
  'c:\docume~1\cbcoasis\locals~1\temp\easy_install-tmlwyw\epydoc-2.1-py2.4-win32.egg.tmp' to it
creating c:\python24\lib\site-packages\epydoc-2.1-py2.4-win32.egg
Extracting epydoc-2.1-py2.4-win32.egg to c:\python24\lib\site-packages
Adding epydoc 2.1 to easy-install.pth file
Installing epydoc.py script to C:\Python24\Scripts
Installing epydoc.pyw script to C:\Python24\Scripts

Installed c:\python24\lib\site-packages\epydoc-2.1-py2.4-win32.egg
Processing dependencies for epydoc
```



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How Do I Create a Python Egg?

In your setup.py change:
`from distutils.core import setup`
to
`from setuptools import setup`
then run:
`python setup.py bdist_egg`
or
`python setup.py sdist`



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Tell Me More

<http://peak.telecommunity.com/DevCenter/PythonEggs>

<http://peak.telecommunity.com/DevCenter/EasyInstall>

<http://peak.telecommunity.com/DevCenter/setuptools>

<http://peak.telecommunity.com/DevCenter/PkgResources>

<http://trizpug.org/Members/cbc/distutils-online/>



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