

Install a Python package into a different directory using pip?

Asked 14 years, 3 months ago Modified 6 months ago Viewed 1.1m times



I know the obvious answer is to use virtualenv and virtualenvwrapper, but for various reasons I can't/don't want to do that.

614

So how do I modify the command



```
pip install package_name
```



to make `pip` install the package somewhere other than the default `site-packages` ?

python pip

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edited Dec 8, 2015 at 20:51



Peter Mortensen

31.5k ● 22 ● 109 ● 132

asked May 26, 2010 at 17:55



Monika Sulik

17.1k ● 15 ● 52 ● 52

3 Related: [How to make editable install of Python package from vcs into specific directory using pip?](#)

– Piotr Dobrogost Jun 2, 2012 at 22:06

2 Now question number two: when you're already installing into a custom directory, how to make `pip` NOT try to remove and older version from a non-custom directory. For example - a system-wide one, where you easy_install ... – Tomasz Gandor Dec 11,



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on should prevent pip from trying to uninstall at 8:30

king "as how to have pi install to a different pip installations to go to python 3.5.

ut your installation/intentions, but generally I environment with something like

me – Monika Sulik Feb 8, 2017 at 22:06

orted by: Highest score (default)

840

```
pip install --target d:\somewhere\other\than\the\default package_name
```

But you still need to add `d:\somewhere\other\than\the\default` to `PYTHONPATH` to actually use them from that location.

-t, --target <dir>

Install packages into <dir>. By default this will not replace existing files/folders in <dir>. Use `--upgrade` to replace existing packages in <dir> with new versions.

Upgrade pip if target switch is not available:

On Linux or OS X:

```
pip install -U pip
```

On Windows (this works around [an issue](#)):

```
python -m pip install -U pip
```

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edited Feb 23 at 13:43



Niko Fohr

32.4k ● 11 ● 105 ● 111

answered Oct 16, 2013 at 13:10



Janusz Skonieczny

18.7k ● 11 ● 57 ● 64

8 @DanH run `pip install --upgrade pip !` – [r3m0t](#) Mar 19, 2014 at 16:51

22 This is the true answer. it's just the option was added quite a bit after the accepted answer. – [bukzor](#) Apr 6,



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`prefix=$PREFIX_PATH` mentioned by [@lan](#) 15, 2014 at 15:49

`--install-option` will be passed on to the `setup.py` packages location. – [Janusz Skonieczny](#) Aug 18,

it will not install any including scripts/data files with `--install-option` is the only proper way [eth Hoste](#) Jan 26, 2015 at 11:11

```
TH" package_name
```



You might also want to use `--ignore-installed` to force all dependencies to be reinstalled using this new prefix. You can use `--install-option` to multiple times to add any of the options you can use with `python setup.py install` (`--prefix` is probably what you want, but there are a bunch more options you could use).



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answered May 26, 2010 at 19:59



Ian Bicking

9,882 ● 6 ● 35 ● 33

- 6 if you do this, is there a way to get `pip freeze` to see the alternate directory? – Russ Jul 22, 2011 at 6:54
- 7 `pip freeze` looks on the path, so if you something like `PYTHONPATH=$PREFIX_PATH/lib/python2.6/site-packages` `pip freeze` it should see them.
– Ian Bicking Aug 3, 2011 at 20:53
- 5 Using `--prefix=$PREFIX_PATH` doesn't seem to allow to have full control of installation directory as there's system specific suffix being appended to it (`\Lib\site-packages` on Windows for example). Is there a way to specify specific directory? – Piotr Dobrogost Jun 2, 2012 at 22:04
- 2 @Piotr: yes there is see my answer. Using `'--prefix'` is a bit coarse, but works nice if you want your pure python to go under `/usr/lib/pythonX.Y/site-packages` instead of `/usr/local/lib/pythonX.Y/site-packages`.
– Anthon Jun 13, 2012 at 14:39
- 125 Not a bad answer 4 years ago, but the `--target` option exists now. – Tritium21 Sep 28, 2014 at 18:20



Instead of the `--target` or `--install-options` options, I have found that setting the `PYTHONUSERBASE` environment variable works well (from discussion on a [bug](#) regarding this very thing):

113



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user

nt before running the command, using

ake the `bin`, `lib`, `share` and other
an `$HOME/.local`.

ther variables as you would a normal

and `--ignore-installed` options if any
ons to be installed in the `PYTHONUSERBASE`

```
PYTHONUSERBASE=/opt/mysterypackage-1.0/python-deps pip install --user --upgrade
numpy scipy
```

..to install the `scipy` and `numpy` package most recent versions into a directory which you can then include in your `PYTHONPATH` like so (using bash and for python 2.6 on CentOS 6 for this example):

```
export PYTHONPATH=/opt/mysterypackage-1.0/python-deps/lib64/python2.6/site-
packages:$PYTHONPATH
export PATH=/opt/mysterypackage-1.0/python-deps/bin:$PATH
```

Using [virtualenv](#) is still a better and neater solution!

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edited Feb 17, 2022 at 14:19

answered Mar 17, 2015 at 15:24



Cristian Ciupitu
20.8k ● 7 ● 53 ● 79



David Gardner
7,547 ● 4 ● 37 ● 37

- 4 This worked with Travis CI running on Docker containers whereas the `--install-option="--prefix=$PREFIX_PATH"` solution did not. – [32bits](#) Aug 9, 2015 at 21:34
- 1 Noobie question, how important is the `/bin` folder pip creates, `--user` creates it as does `--PREFIX` whereas `--target` does not. – [Jonathan](#) Sep 27, 2016 at 14:13
- 1 If package is installed in global Python, `--ignore-installed` is needed. – [George Sovetov](#) Jan 17, 2017 at 11:35
- 1 This option is also compatible with `--editable` and local installs. – [mdh](#) Feb 27, 2017 at 13:57
- 2 This option comes handy for installing packages as superuser for another non-root user without having to `su` around (which may be problematic in containers, for example). – [mdh](#) Feb 27, 2017 at 14:05



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ted to the location I wanted the directory

[cloudstorageclient/download](#)

answered Aug 31, 2015 at 17:46



user2738183

at 14:11

This was the only solution which worked for me. (Windows 7) – Coliban Jul 30, 2019 at 11:59



46

Installing a Python package often only includes some pure Python files. If the package includes data, scripts and or executables, these are installed in different directories from the pure Python files.



Assuming your package has no data/scripts/executables, and that you want your Python files to go into `/python/packages/package_name` (and not some subdirectory a few levels below `/python/packages` as when using `--prefix`), you can use the one time command:



```
pip install --install-option="--install-purelib=/python/packages" package_name
```

If you want all (or most) of your packages to go there, you can edit your `~/.pip/pip.conf` to include:

```
[install]
install-option=--install-purelib=/python/packages
```

That way you can't forget about having to specify it again and again.

Any executables/data/scripts included in the package will still go to their default places unless you specify addition install options (`--prefix` / `--install-data` / `--install-scripts`, etc., for details look at the [custom installation](#) options).

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edited Dec 8, 2015 at 20:53



Peter Mortensen

109 ● 132

answered Jun 13, 2012 at 14:39



Anthon

75.1k ● 34 ● 200 ● 271



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fix there, because I have a "local" directory as the prefix by `easy_install` before I moved it before. Instead of `install-option=--prefix` option/switch. It is also nice, but that you'd use with `setup.py` or

`install-option: ['--install-purelib']`
level options like `--user`, `--prefix`,
7610 Apr 29, 2022 at 11:25



Installs ALL packages including dependencies under `/myfolder`. Does not take into account that dependent packages are already installed elsewhere in Python. You will find packages from `/myfolder/[package_name]`. In case you have multiple Python versions, this doesn't take that into account (no Python version in package folder name).

`pip install --prefix /myfolder [packages]`

Checks if dependencies are already installed. Will install packages into `/myfolder/lib/python3.5/site-packages/[packages]`

`pip install --root /myfolder [packages]`

Checks dependencies like `--prefix` but install location will be `/myfolder/usr/local/lib/python3.5/site-packages/[package_name]`.

`pip install --user [packages]`

Will install packages into `$HOME: /home/[USER]/.local/lib/python3.5/site-packages` Python searches automatically from this `.local` path so you don't need to put it to your `PYTHONPATH`.

=> In most of the cases `--user` is the best option to use. In case home folder can't be used because of some reason then `--prefix`.

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edited Dec 22, 2022 at 13:13



Seppo Enarvi

3,525 ● 3 ● 35 ● 26

answered Dec 20, 2018 at 14:06



Mikko

Mikk 1,009 ● 9 ● 5

- 1 Running under python 2.7.16, `--target` (or `--prefix`) installs `Jinja2-2.10.1.dist-info/` for example, whereas `install --install-option="--prefix` installs `Jinja2-2.10.1-py2.7.egg-info/`, which is what I actually wanted
– Greg Dougherty Aug 7, 2019 at 17:52



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15, 2020 at 17:38

packages in `$PYTHONUSERBASE`. Is there any `PYTHONUSERBASE` vs using `--prefix` and setting

the package will be installed under `~/.local` where you can control the default behavior which package to be site-package – Kemin Zhou Jan



```
pip install "package_name" -t "target_dir"
```

25

source - https://pip.pypa.io/en/stable/reference/pip_install/

-t switch = target



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edited Jul 26, 2023 at 3:35

answered May 11, 2020 at 14:09



Samir Kape

1,977 ● 2 ● 18 ● 21

1 @merv it's different because it's not the same. isn't it? – Alex M.M. Nov 6, 2020 at 14:44



Nobody seems to have mentioned the -t option but that the easiest:

21

```
pip install -t <direct directory> <package>
```



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answered Feb 20, 2018 at 0:02

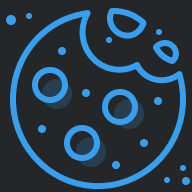


Erwan

3,731 ● 31 ● 25



12 The `-t` option is the short version of the `--target` option which has been described in another answer (stackoverflow.com/a/19404371/594053) :) – MattiSG Apr 3, 2018 at 5:40



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t 9:06
ne data
7 ● 157

answered Feb 22, 2019 at 8:35



kundan kaushik

217 ● 2 ● 11

18, 2022 at 22:38



Just add one point to @Ian Bicking's answer:

15

Using the `--user` option to specify the installed directory also work if one wants to install some Python package into one's home directory (without sudo user right) on remote server.



E.g.,



```
pip install --user python-memcached
```

The command will install the package into one of the directories that listed in your PYTHONPATH.

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edited Dec 23, 2014 at 20:08

answered Dec 23, 2014 at 19:46



ohmu

19.5k ● 42 ● 111 ● 147



Good Fit

1,298 ● 17 ● 10



Newer versions of `pip` (8 or later) can directly use the `--prefix` option:

14

```
pip install --prefix=$PREFIX_PATH package_name
```



where `$PREFIX_PATH` is the installation prefix where lib, bin and other top-level folders are placed.



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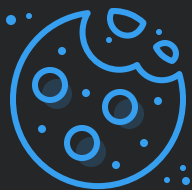
edited Feb 11 at 20:06

answered May 24, 2017 at 6:37



Mike T

43k ● 18 ● 162 ● 210



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installing [IPython](#) when I didn't have write

es how that can cause a problem as it

te to '/usr/local/share/man/man1' with
write the IPython files in the bin directory.

cal. Adding ~/.local/bin to the \$PATH

nd had been given write permission to
n" directory under there and set directives


```
vim ~/.pydistutils.cfg

[install]
install-data=/usr/local/lib/python2.7
install-scripts=/usr/local/lib/python2.7/bin
```

then (`-I` is used to force the install despite previous failures/.local install):

```
pip install -I ipython
```

Then I added `/usr/local/lib/python2.7/bin` to `$PATH`.

I thought I'd include this in case anyone else has similar issues on a machine they don't have sudo access to.

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edited Dec 8, 2015 at 20:57



Peter Mortensen

31.5k ● 22 ● 109 ● 132

answered May 29, 2015 at 14:24



Stuart Brock

3,844 ● 1 ● 23 ● 21



If you are using brew with python, unfortunately, pip/pip3 ships with very limited options. You do not have `--install-option`, `--target`, `--user` options as mentioned above.

2



[Note](#) on pip install --user

The normal pip install --user is disabled for brewed Python. This is because of a bug in distutils, because Homebrew writes a distutils.cfg which sets the package prefix. A possible workaround (which puts executable scripts in `~/Library/Python/./bin`) is:

```
python -m pip install --user --install-option="--prefix=" <package-name>
```



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pyenv for management. If you are using

does not have `--target` option, and I have

at 13:28

answered Sep 17, 2018 at 13:22




anonymous

1,472 ● 2 ● 19 ● 22

due to previous efforts, worked for me:


```
--prefix='/myFunkyApp/lib' --ignore-
```

installed <package-name> – [Jeremy Jones](#) Aug 28, 2019 at 16:00 

 `pip install /path/to/package/`

1

is now possible.

 The difference with this and using the `-e` or `--editable` flag is that `-e` links to where the package is saved (i.e. your downloads folder), rather than installing it into your python path.



This means if you delete/move the package to another folder, you won't be able to use it.



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answered Jan 18, 2019 at 8:37




[AH](#)

2,464 ● 2 ● 23 ● 41

1 this doesn't answer the question – [Clintm](#) Dec 4, 2019 at 4:19

This lets you install a "local" package at the path you put it in. – [AH](#) Jun 8, 2021 at 11:02

 With pip `v1.5.6` on Python `v2.7.3` (GNU/Linux), option `--root` allows to specify a global installation prefix, (apparently) irrespective of specific package's options. Try f.i.,

0

```
$ pip install --root=/alternative/prefix/path package_name
```



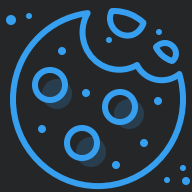
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answered Aug 18, 2014 at 14:53



[sphakka](#)

489 ● 5 ● 12



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pip.conf file. Note in the documentation
s to following error:

but installation scheme `is`

Unfortunately I can install, but when try to uninstall pip tells me there is no such package for uninstallation process.... so something is still wrong but the package goes to its predefined location.

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answered Dec 5, 2017 at 10:57



[Ladislav Zitka](#)

1,002 ● 11 ● 16



0



system` option, that will install pip package-bins to /usr/local/bin thats accessible to all users. Installing without this option may not work for all users as things go to user specific dir like \$HOME/.local/bin and then it is user specific install which has to be repeated for all users, also there can be path issues if not set for users, then bins won't work. So if you are looking for all users - yu need to have sudo access:

```
sudo su -  
python3 -m pip install --system <module>  
logout  
log back in  
which <module-bin> --> it should be installed on /usr/local/bin/
```

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answered Mar 17, 2021 at 13:50



[ashish](#)

449 ● 4 ● 8



Sometimes it works only works with Cache argument

```
python3 -m pip install --target <path> --site-packages Pillow --cache-
```

answered Dec 29, 2022 at 10:47



[dazzafact](#)

2,794 ● 3 ● 32 ● 51



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Use:

```
pip install package_name -t directory_path --no-user
```

e.g. `pip install pandas -t C:\Users\user\Desktop\Family\test --no-user`

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answered Nov 19, 2023 at 6:32



[Vaibhav Kabdwal](#)

91 ● 6



use default venv, third party vitrualenv or virtualenvwrapper will be pain in future

-3

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answered May 6, 2023 at 8:18



[shyed2001](#)

1 ● 6

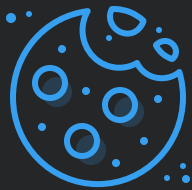


2 The OP says: "*I know the obvious answer is to use virtualenv and virtualenvwrapper, but for various reasons I can't/don't want to do that.*" – [Gino Mempin](#) May 8, 2023 at 23:37



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