dh-virtualenv Documentation

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What is dh-virtualenv

`dh-virtualenv` is a tool that aims to combine Debian packaging with self-contained virtualenv based Python deployments. To do this, the package extends debhelper's sequence by providing a new command in sequence, `dh_virtualenv`, which effectively replaces following commands from the sequence:

- `dh_auto_install`
- `dh_python2`
- `dh_pycentral`
- `dh_pysupport`

In the sequence the `dh_virtualenv` is inserted right after `dh_perl`.

Building packages with dh-virtualenv

Building packages with *dh-virtualenv* is relatively easy to start with but it also supports lot of customization to fit in your general needs.

By default, *dh-virtualenv* installs your packages under `/usr/share/python/<packagename>`. The package name is provided by the `debian/control` file.

2.1 Simple usecase

To signal debhelper to use *dh-virtualenv* for building your package, you need to pass `--with python-virtualenv` to debhelper sequencer.

In a nutshell, the simplest `debian/rules` file to build using *dh-virtualenv* looks like this:

```
#!/usr/bin/make -f

%:
        dh $@ --with python-virtualenv
```

However, the tool makes a few assumptions of your project's structure:

- For installing requirements, you need to have a file called `requirements.txt` in the root directory of your project. The requirements file is not mandatory.

- The project must have a `setup.py` file in the root of the project. Sequencer will run `setup.py install` to install the package inside the virtualenv.

After these are place, you can just build the package with your favorite tool!

2.2 Command line options

To change the default behavior the `dh_virtualenv` command accepts a few command line options:

-p `<package>`, **--package** `<package>`
    Act on the package named *<package>*

-N `<package>`, **--no-package** `<package>`
    Do not act on the specified package

-v, --verbose
    Turn on verbose mode. This has a few effects: it sets root logger level to `DEBUG` and passes verbose flag to `pip` when installing packages. This can also be provided using the standard `DH_VERBOSE` environment variable.

--extra-index-url `<url>`
> Use extra index url *<url>* when running `pip` to install packages. This can be provided multiple times to pass multiple URLs to `pip`. This is useful if you for example have a private Python Package Index.

--preinstall `<package>`
> Package to install before processing the requirements. This flag can be used to provide a package that is installed by `pip` before processing requirements file. This is handy if you need to install for example a custom setup script or other packages needed to parse `setup.py`. This flag can be provided multiple times to pass multiple packages for pre-install.

--pypi-url `<URL>`
> Base URL of the PyPI server. This flag can be used to pass in a custom URL to a PyPI mirror. It's useful if you for example have an internal mirror of the PyPI or you run a special instance that only exposes selected packages of PyPI. If this is not provided, the default will be whatever `pip` uses as default (usually `http://pypi.python.org/simple`).

--setuptools
> Use setuptools instead of distribute in the virtualenv

2.3 Advanced usage

To provide command line options to `dh_virtualenv` sequence the override mechanism of the debhelper is the best tool.

Following `debian/rules` will provide *http://example.com* as additional Python Package Index URI:

```
#!/usr/bin/make -f

%:
	dh $@ --with python-virtualenv

override_dh_virtualenv:
	dh_virtualenv --extra-index-url http://example.com
```

Indices and tables

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

Symbols

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