Pip4Blender Documentation

Release 1.0.0

AO Labs

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CHAPTER 1

Overview

This is a Blender Add-on which enables support for using pip (the standard Python Package Manager) from within Blender.

Blender utilizes a bundled Python implementation, which does not include pip. Because of this, it is actually quite difficult to install third-party libraries and packages into the Blender Python Implementation.

This issue makes developing Blender Add-ons far more difficult, because developers cannot use tried-and-true 3rd party libraries, and are forced to write the same code over and over for each add-on that needs it.

Pip4Blender makes this just as easy as installing normal add-ons, and supports a developer-centric workflow designed to make building and distributing add-ons with dependencies as simple as possible.

CHAPTER 2

Features

- Install Pip into the Blender Python installation from the Blender UI
- Use pip to install specific libraries from the Blender UI
- Import requirements.txt files from the Blender UI
- Generate requirements.txt files from the Blender UI
- Compatible with all Blender versions using Python3 (ie. since Blender 2.5)
- Compatible with all major Operating Systems (Windows, Mac, Linux)

chapter $\mathbf{3}$

License

PyAesel is licensed under the MIT license. For further details, please refer to the LICENSE file.

CHAPTER 4

Contact

If you believe that you have found a bug in Pip4Blender, or have an enhancement request, we encourage you to raise an issue on our github page.

4.1 Installation

Pip4Blender is installed exactly like any other Blender add-on, and is distributed as a single Python file.

4.1.1 Add-on Install

From the User Preferences panel, select 'Install Addon from File', and select the pip4blender.py file.

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4.1.2 Pip Install

Installing Pip in the Blender environment is also required before the rest of the functionality of the add-on is accessed. This can be done by selecting the 'Install Pip in Blender' button, but only needs to be done once for any given Blender installation.

This might take a few minutes to run, if you want to watch the installation progress you should run Blender from a terminal.

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4.2 Getting Started

Now that the add-on is installed, we can use it to install any Python package available over pip.

4.2.1 Installing a Library with Pip

Installing a single package is done by specifying the package name, then using the 'Install Python Library' button:

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For example, if we type 'requests' into the text box shown above, then hit the button, we would install the Requests module into Blender's Python installation with pip.

4.2.2 Installing a Requirements File with Pip

If you have been provided with a requirements.txt file, often along with an add-on you wish to install, you can hit the 'Install Requirements File' button, and select the file in the browser that opens up:

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This will install all dependent packages specified in the requirements file to your Blender installation.

4.3 Developing with Pip4Blender

Developers creating new Add-ons will benefit the most from pip4blender. During initial development, developers can install libraries as needed, one-by-one. This reduces the overall cost of development by promoting use of solid, well-tested, third-party libraries instead of the same code re-written over and over again.

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4.3.1 Distribution

Once an add-on is complete (enough) to release to the public, a requirements.txt file can be generated, which specifies the name and version of all dependent packages. This file can then be packaged along with an add-on, and distributed.

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4.3.2 User Installation

Users who have pip4blender installed can hit the 'Install Requirements File' button, which will open a file browser to select the requirements file supplied by the developer.

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