



MEDEAS
MODELING THE RENEWABLE ENERGY TRANSITION IN EUROPE



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691287

25/01/2019

pymedeas models installation steps

Installation instructions for MS Windows
users

Roger Samsó





Installation Procedure

Main steps

1. Downloading pymedeas models package from www.medeas.eu
2. Downloading and installing Python 3.7 (Anaconda 3.5)
3. Downloading and installing PyCharm Community Edition (OPTIONAL, if you want a GUI)
4. Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)
5. Configuring PyCharm to run the model (OPTIONAL)
6. Running a test simulation (OPTIONAL)



Installation procedure

Downloading pymedeas models package from www.medeas.eu

1. Go to **www.medeas.eu/model/medeas-model**
2. Click on “I just want to download the Medeas Model without registering”
3. Save the zip file of the current version of the model in your computer
4. Extract the file somewhere inside your user directory (e.g. *C:\Users\roger\Development\pymedeas*)

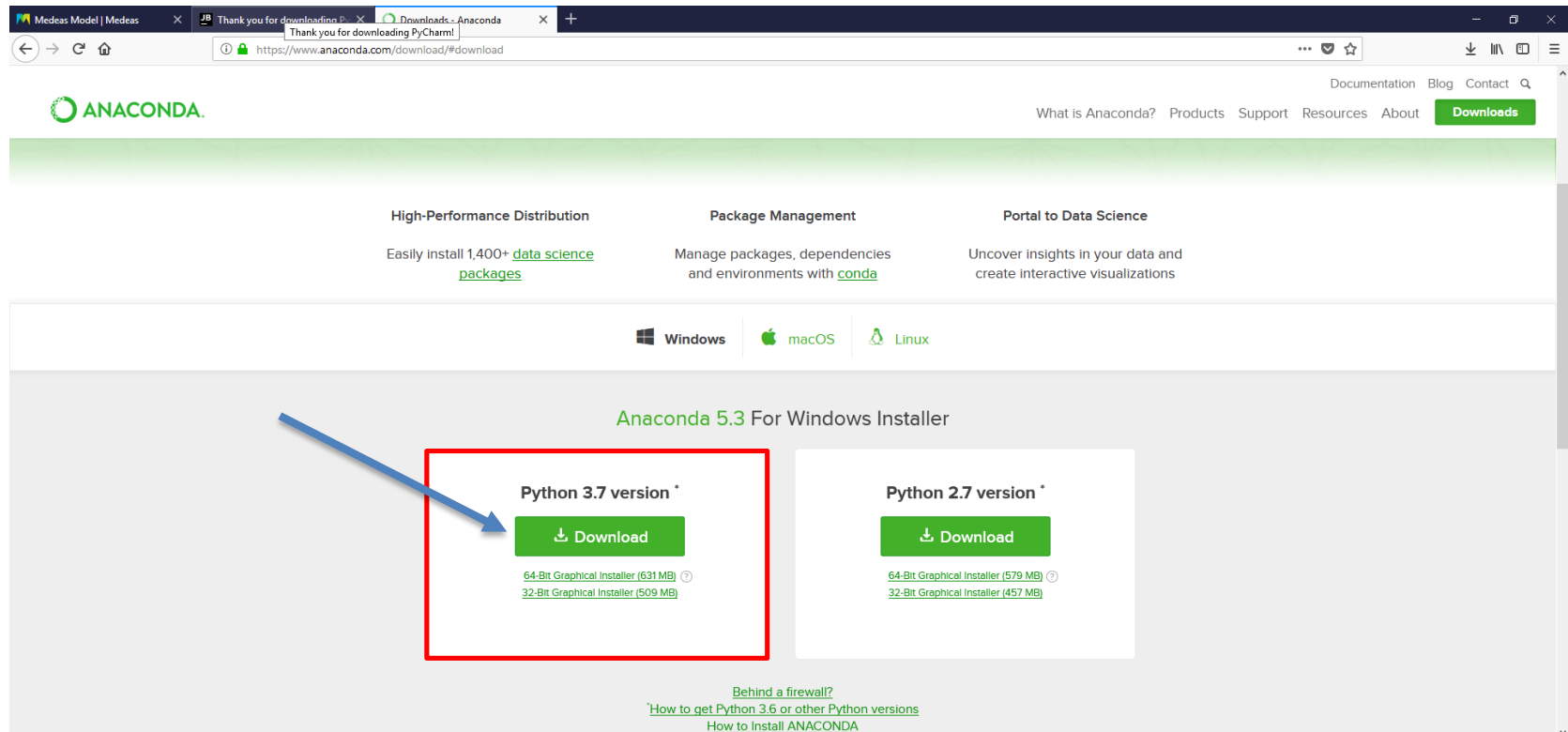
The screenshot shows the website <https://www.medeas.eu/model/medeas-model#>. The left sidebar contains a navigation menu with the following items: MEDEAS MODEL, SCENARIOS & PATHWAYS, MEDEAS VS TIMES & LEAP, IMPACTS & POLICIES, and MOOC COURSE. The main content area is titled "MEDEAS MODEL" and features social media icons for Twitter, Facebook, and LinkedIn. Below these, there is a list of three options: "If you want to have support for the model software please register as a model user", "Get Email updates by signing in to our mailing list", and "I just want to download the Medeas Model without registering". A blue arrow points to the third option. Below this list, the "Last version: pymedeas_w0.1.0.zip" is displayed, along with a description of the software's open-source license and a disclaimer. The bottom section of the page is titled "STRUCTURE OF MEDEAS-WORLD MODEL" and provides a brief overview of the model's scope and its role as a framework for the European model version.



Installation procedure

Downloading and Installing Python 3.7 (Anaconda 3.5)

1. Go to <https://www.anaconda.com/download/>
2. Scroll down until you see the Download links.
3. Download **Python 3.7 version**

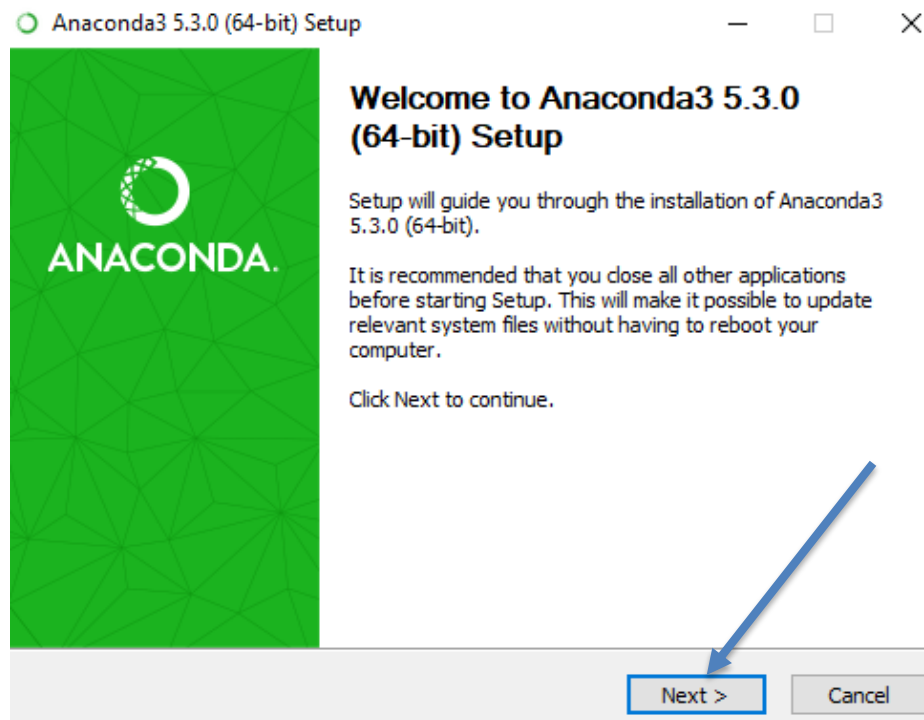




Installation procedure

Downloading and Installing Python 3.7 (Anaconda 3.5)

4. Click twice on the downloaded file (Anaconda3-5.3.0-Windows-x86_64.exe) to start the installation process

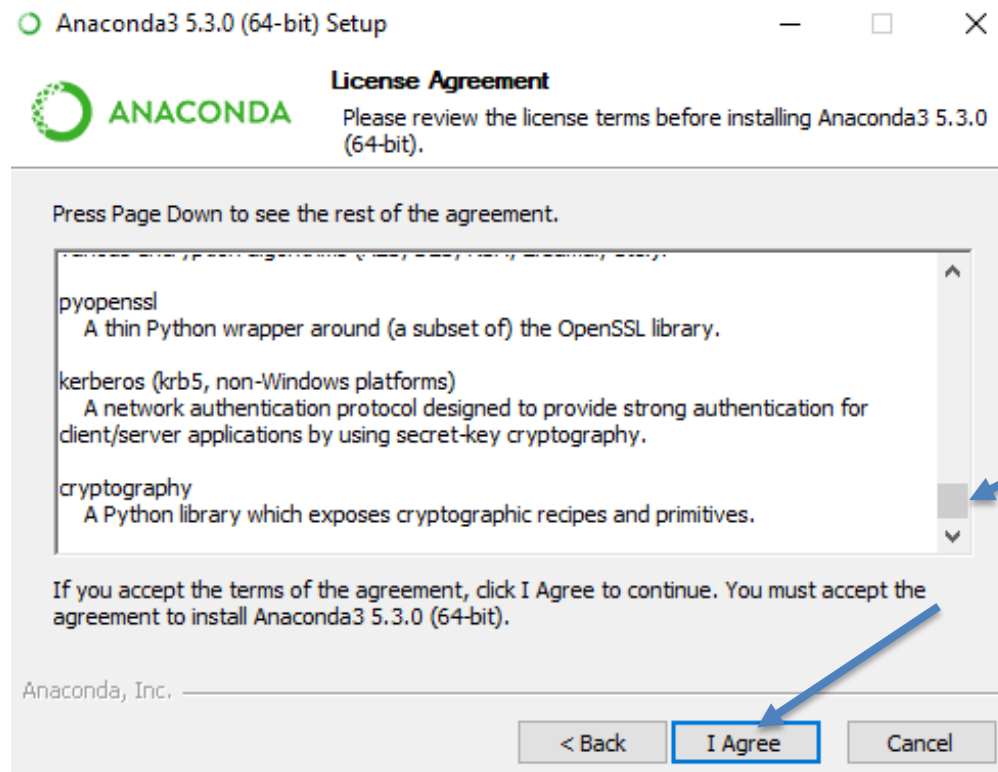




Installation procedure

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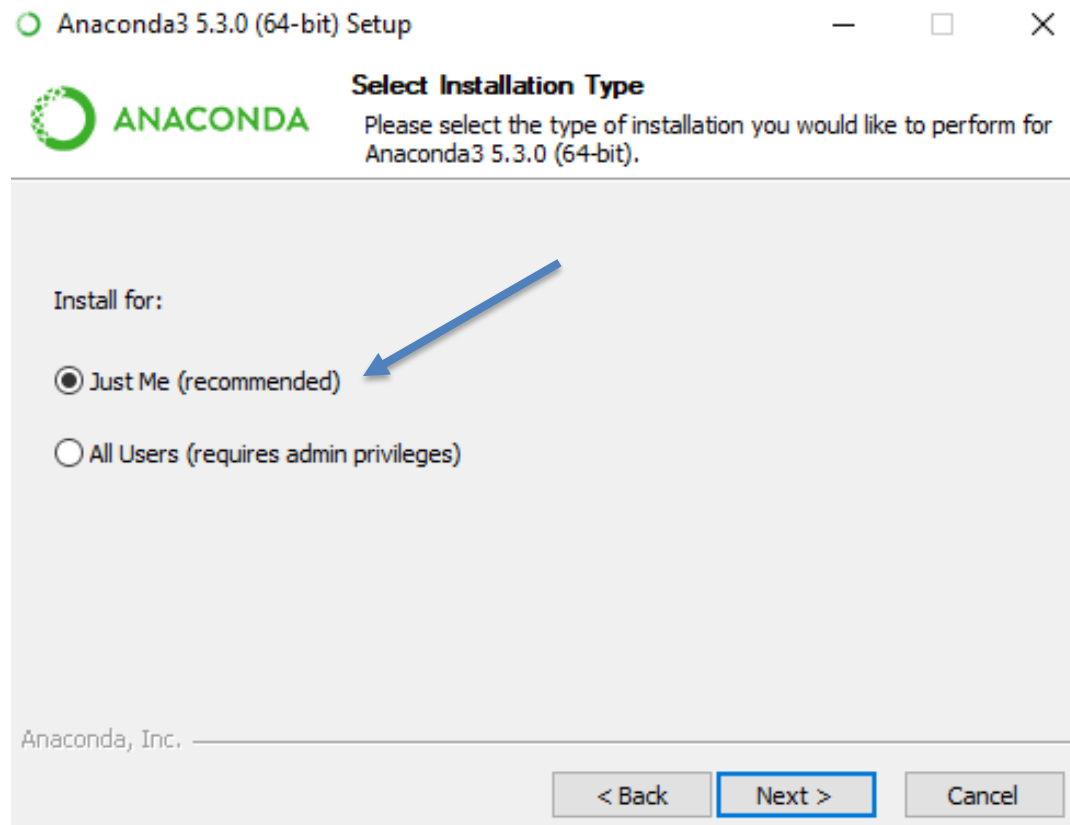
Scroll down



Installation procedure

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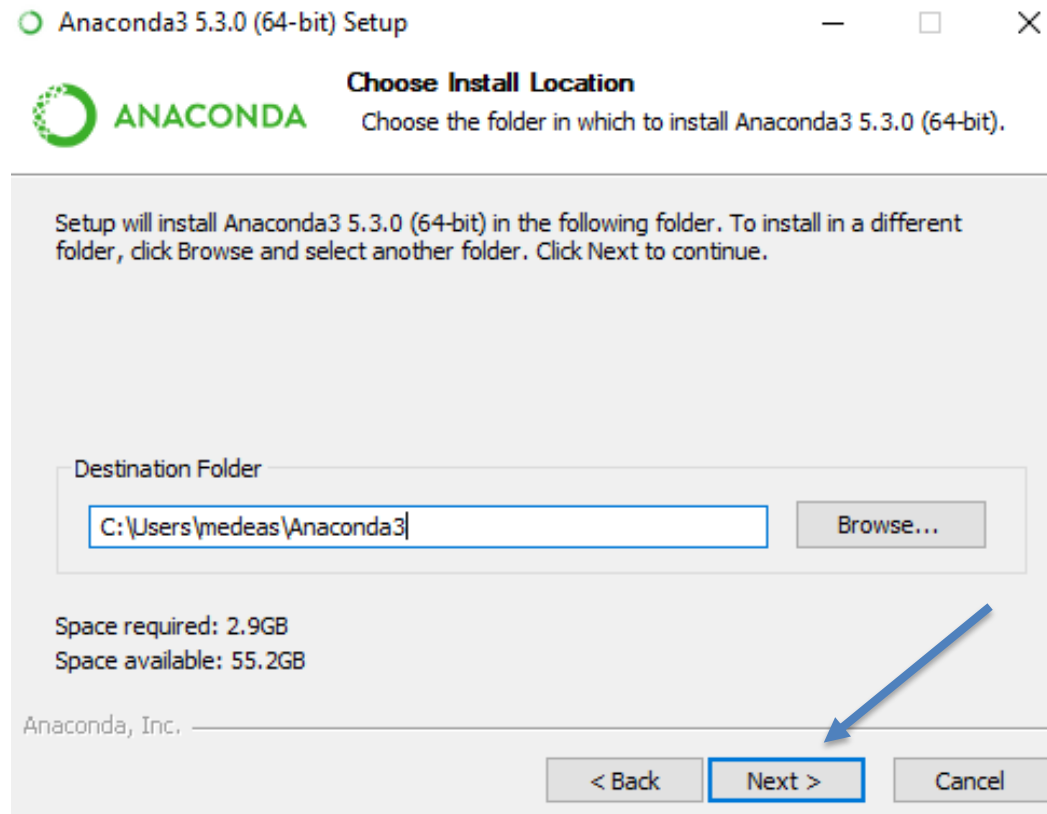




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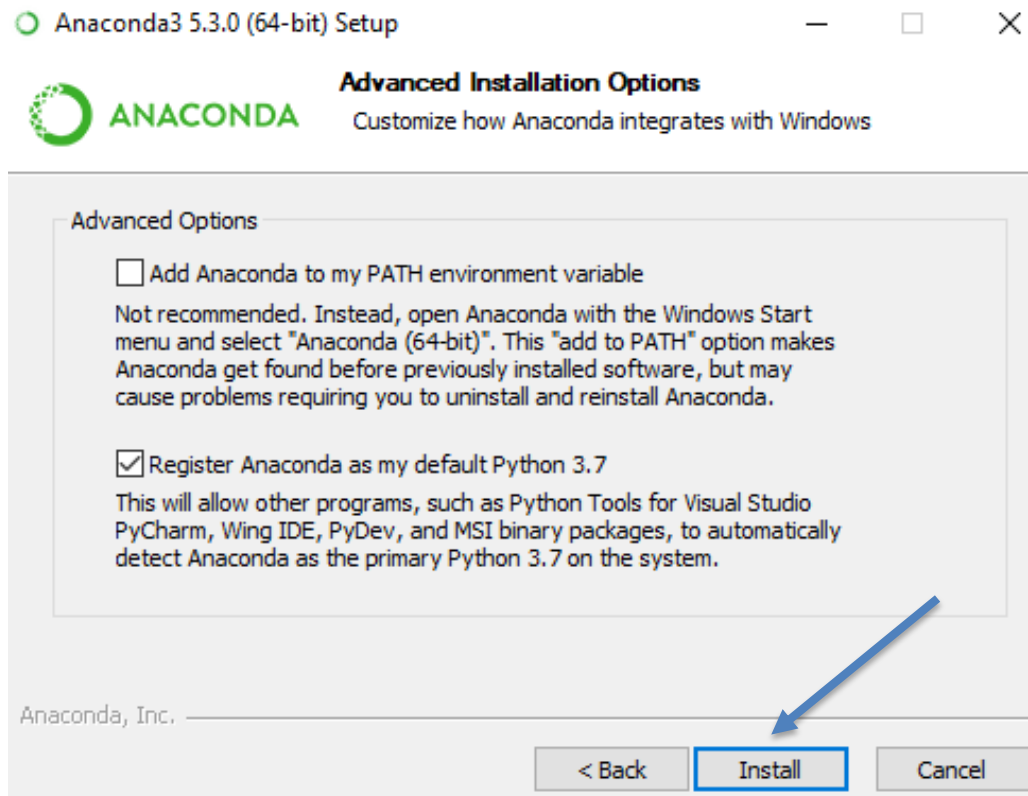




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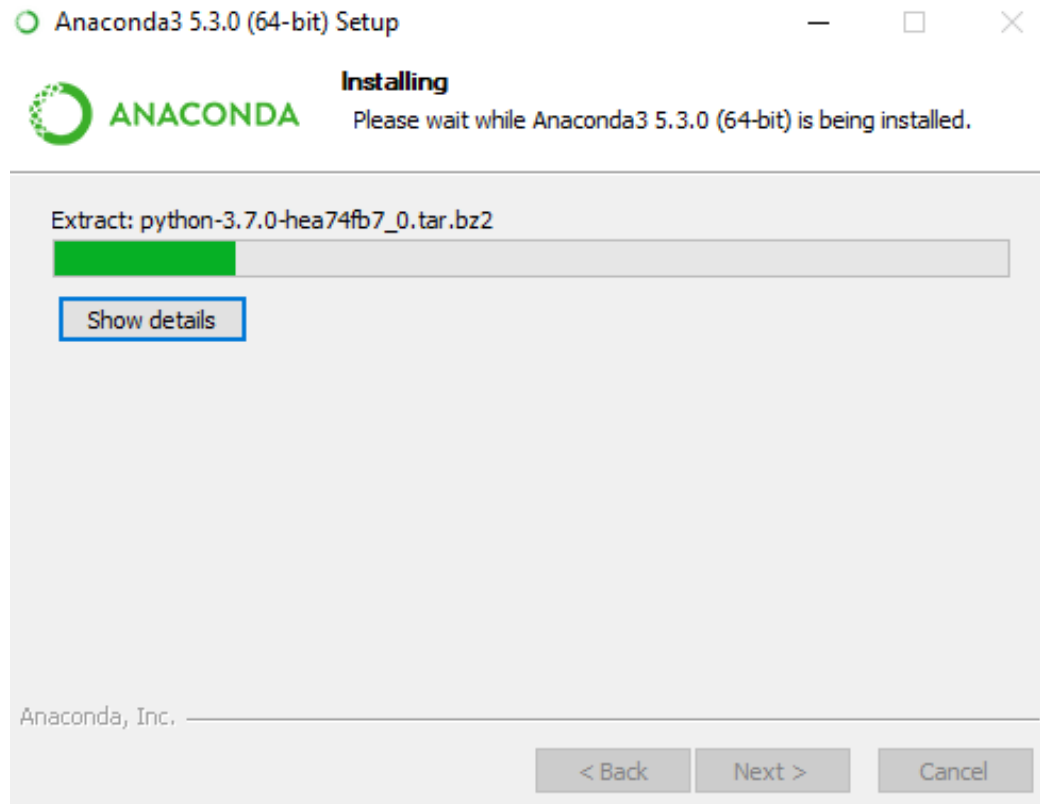




Installation procedure

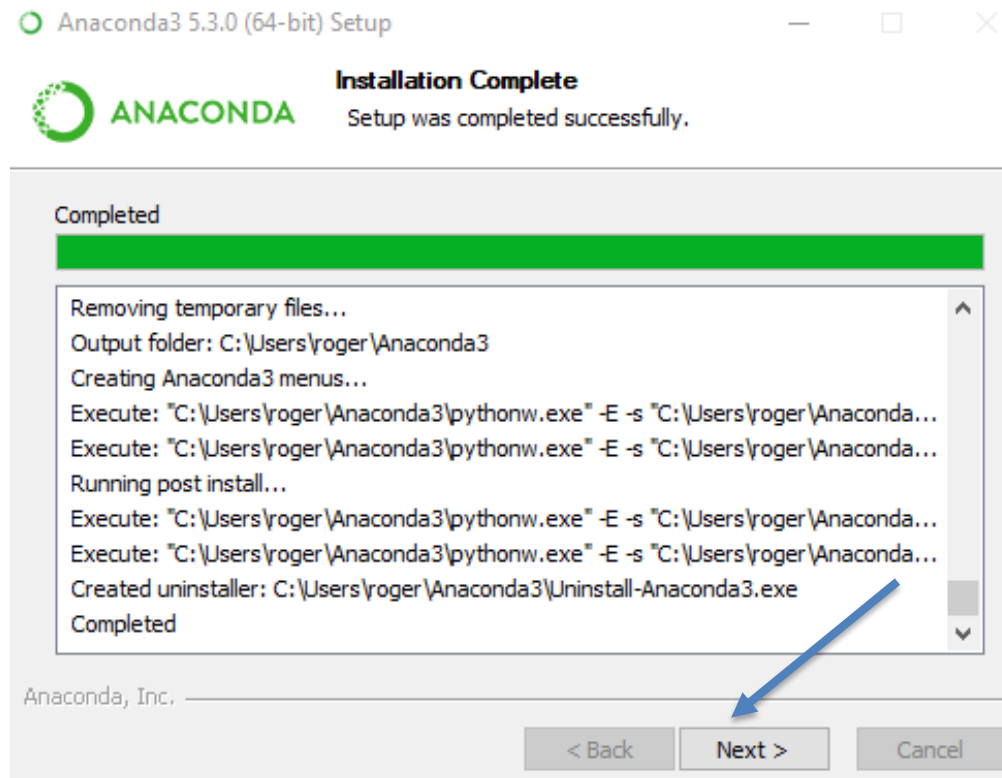
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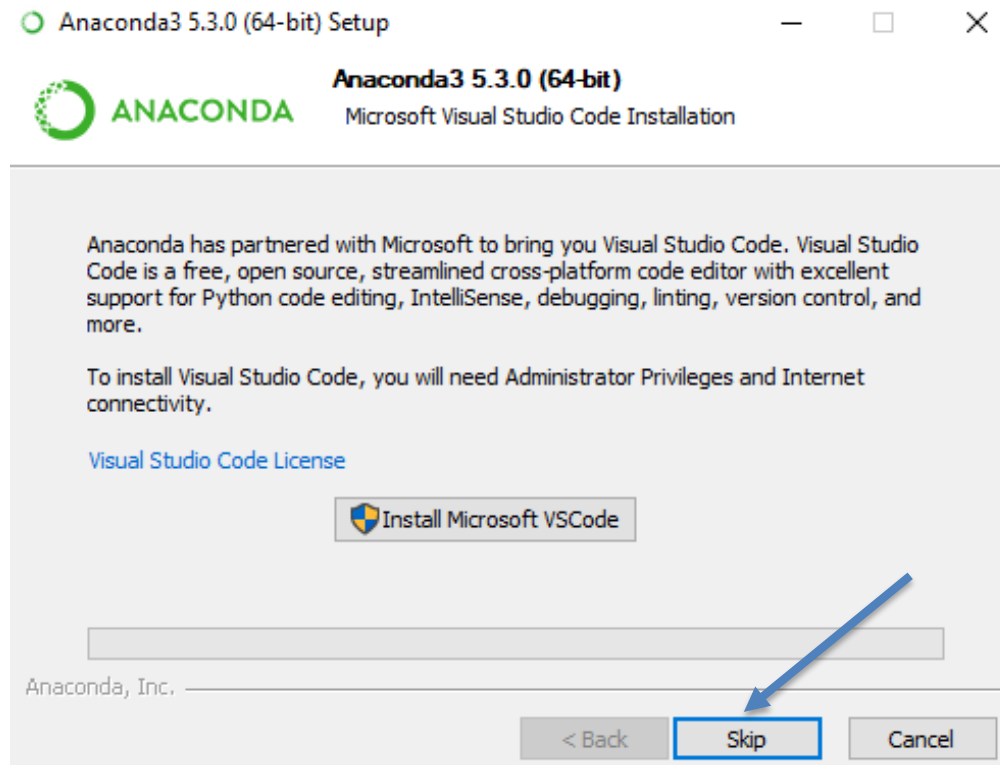




Installation procedure

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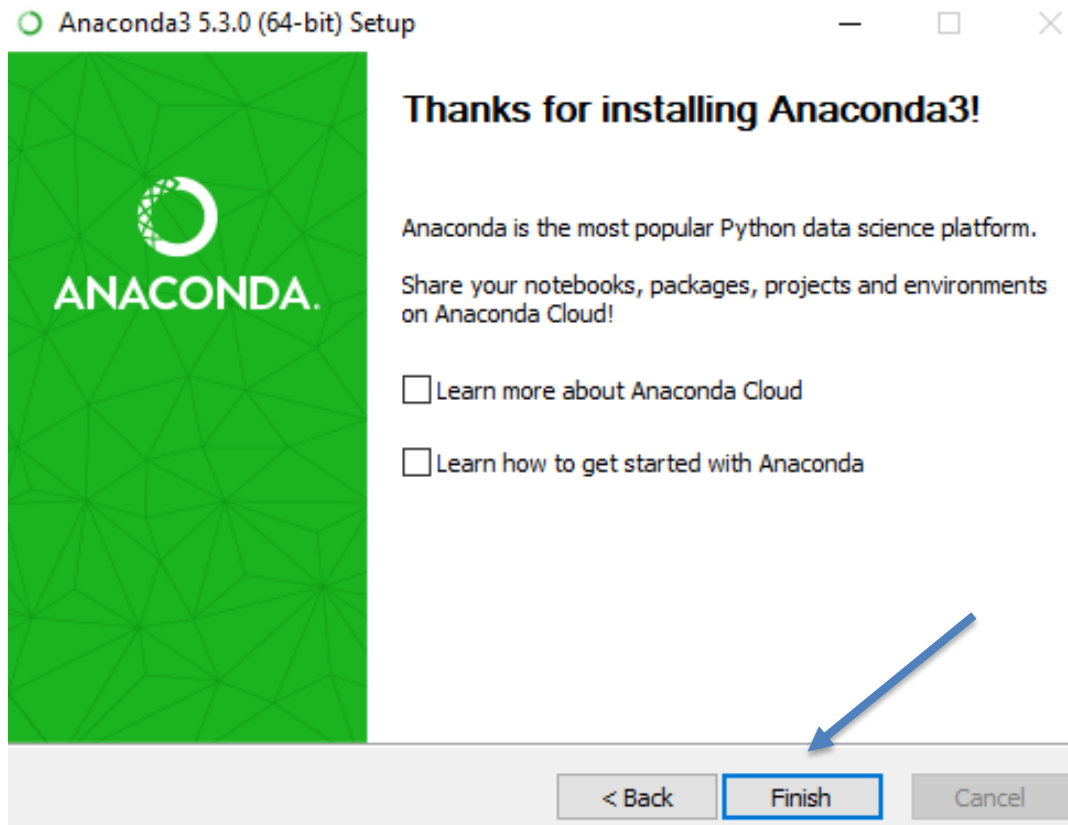




Installation procedure

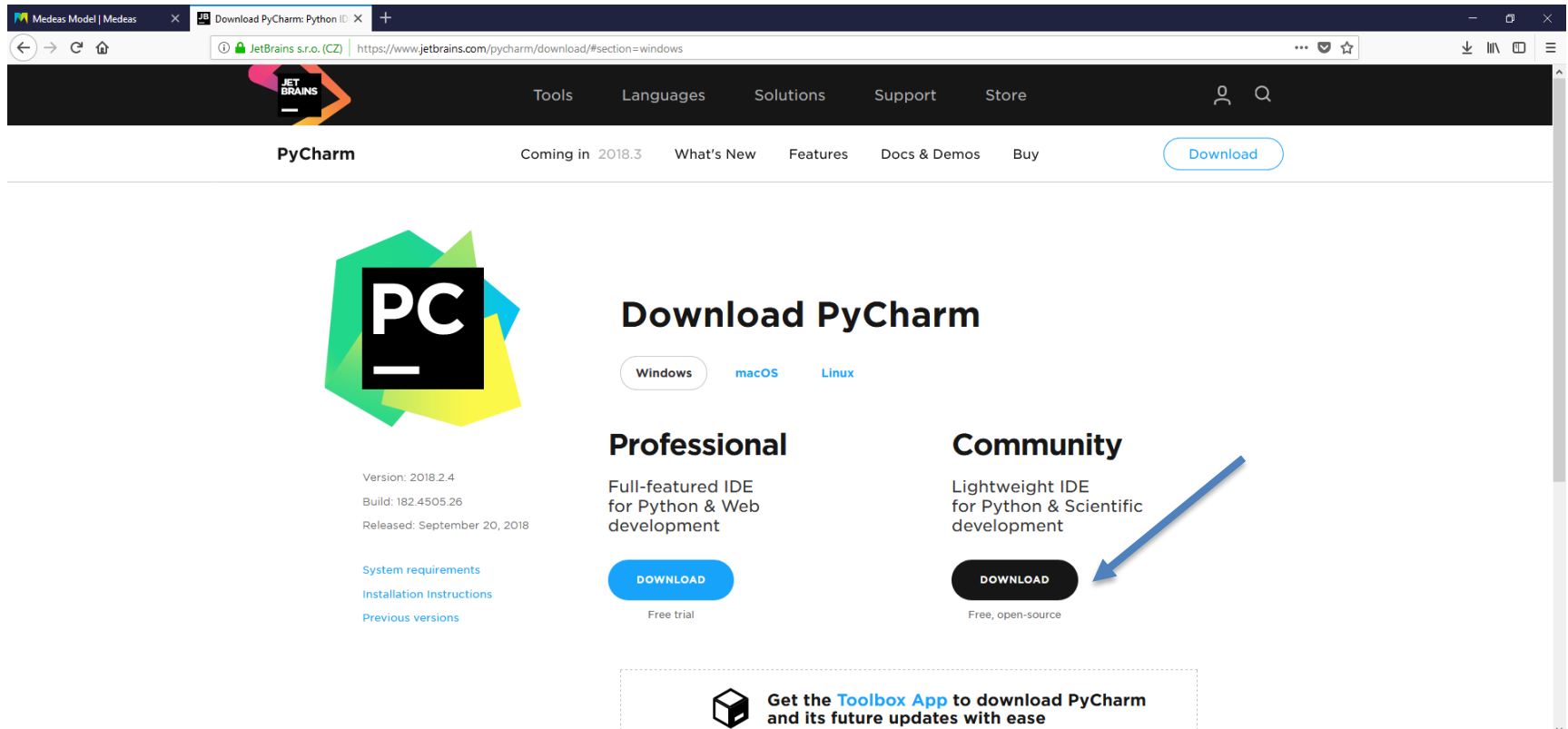
Downloading and Installing Python 3.7 (Anaconda 3.5)

4. Click twice on the downloaded file (Anaconda3-5.3.0-Windows-x86_64.exe) to start the installation process



Downloading and Installing PyCharm Community Edition (OPTIONAL, if you want a GUI)

1. Go to <https://www.jetbrains.com/pycharm/download/>
2. Download the Community version (it is FLOSS)



The screenshot shows the JetBrains PyCharm download page in a web browser. The browser's address bar displays the URL <https://www.jetbrains.com/pycharm/download/#section=windows>. The page features the PyCharm logo, which includes a stylized 'PC' on a black background with a white horizontal line, set against a colorful geometric pattern. Below the logo, the version information is listed: Version: 2018.2.4, Build: 182.4505.26, and Released: September 20, 2018. Links for 'System requirements', 'Installation Instructions', and 'Previous versions' are provided. The page is divided into two main sections: 'Professional' and 'Community'. The 'Professional' section describes it as a 'Full-featured IDE for Python & Web development' and offers a 'Free trial' download. The 'Community' section describes it as a 'Lightweight IDE for Python & Scientific development' and offers a 'Free, open-source' download. A blue arrow points to the 'DOWNLOAD' button for the Community version. At the bottom, a banner promotes the 'Toolbox App' for downloading PyCharm and its updates.

PyCharm

Coming in 2018.3 What's New Features Docs & Demos Buy [Download](#)

Version: 2018.2.4
Build: 182.4505.26
Released: September 20, 2018

[System requirements](#)
[Installation Instructions](#)
[Previous versions](#)

Download PyCharm

Windows macOS Linux

Professional

Full-featured IDE for Python & Web development

[DOWNLOAD](#)
Free trial

Community

Lightweight IDE for Python & Scientific development

[DOWNLOAD](#)
Free, open-source

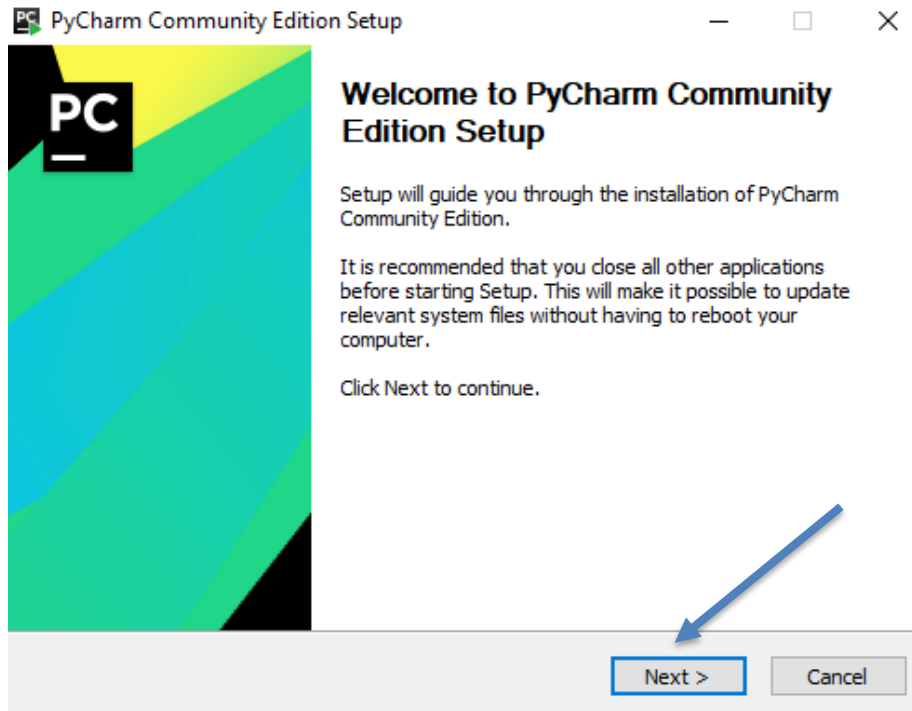
Get the [Toolbox App](#) to download PyCharm and its future updates with ease



Installation procedure

Downloading and Installing PyCharm Community Edition (OPTIONAL, if you want a GUI)

3. No need to subscribe, the file will start downloading after clicking on Download
4. Select the directory where you want to download the file (e.g. *C:\Users\medeas\Downloads*)
5. When the download is over, click on the file twice to start the installation process

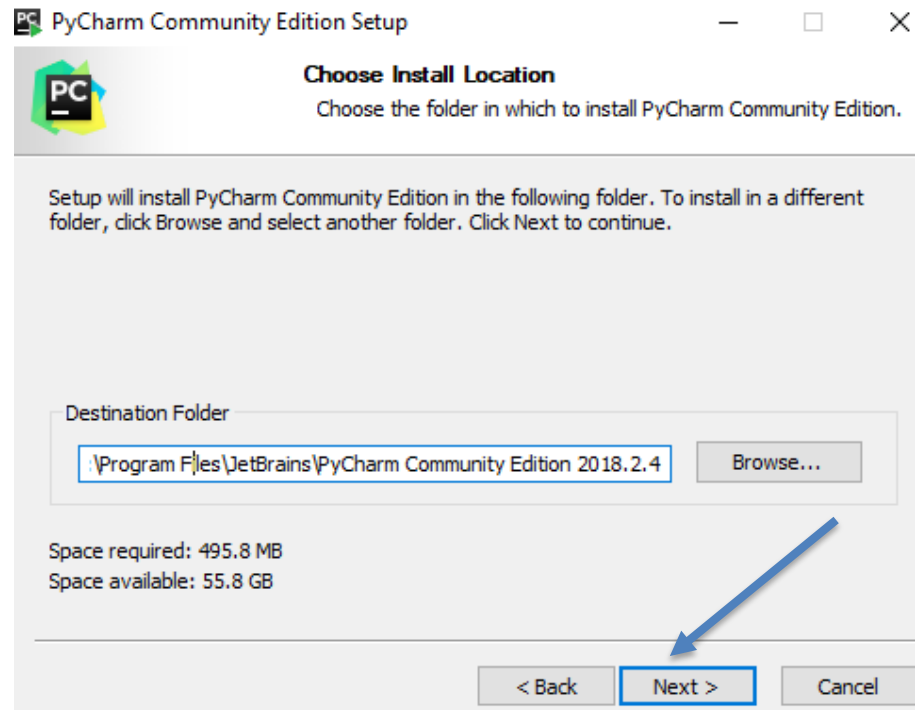




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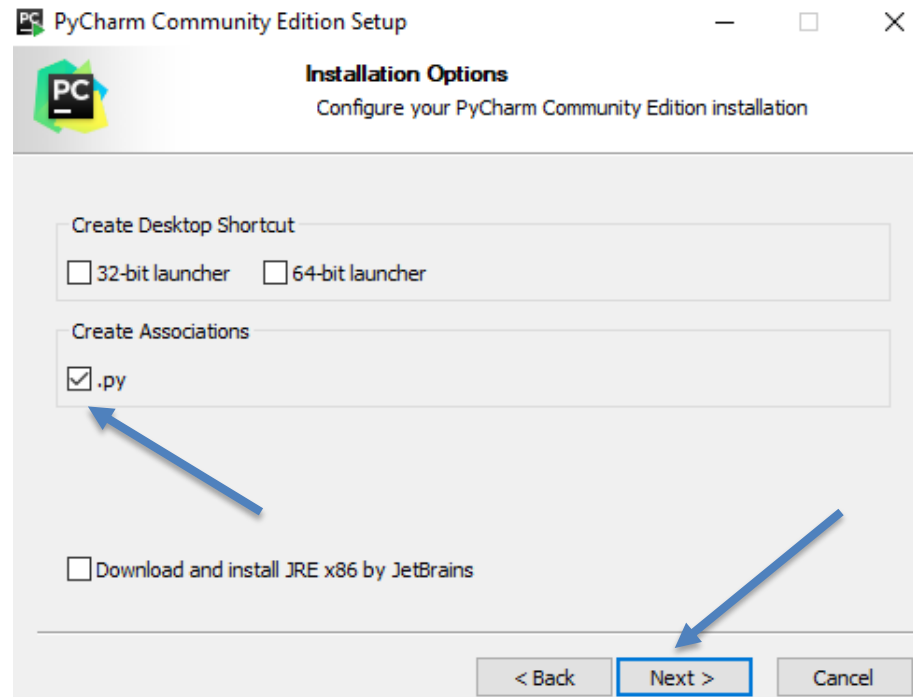




Installation procedure

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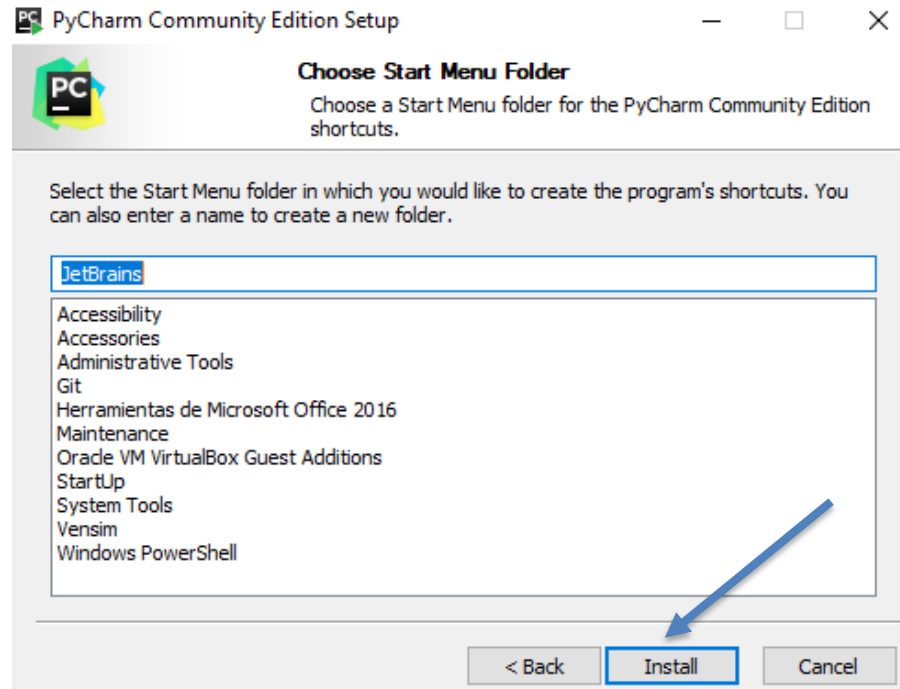




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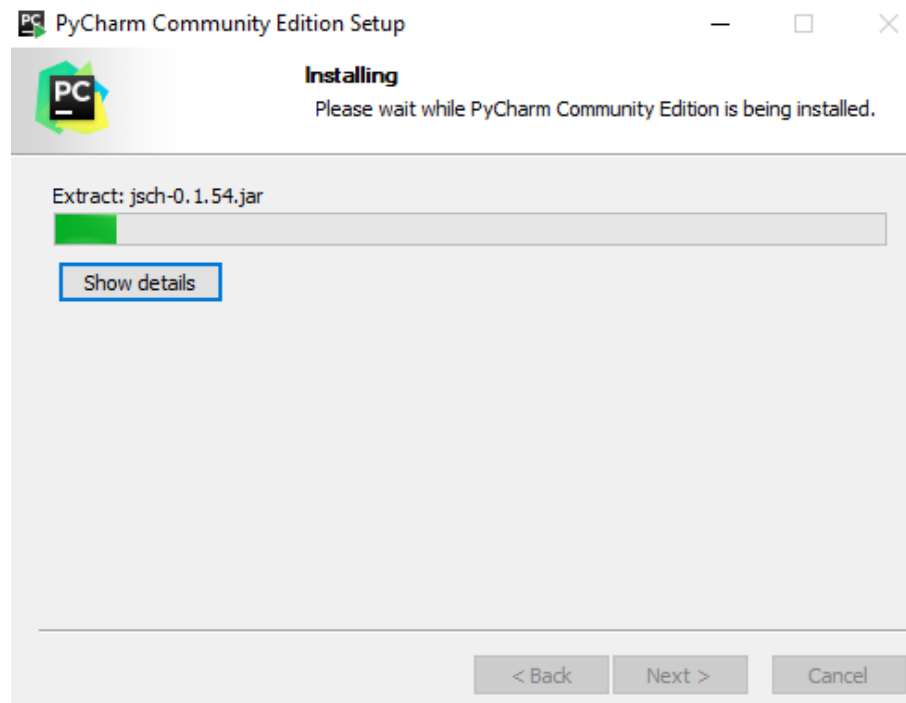




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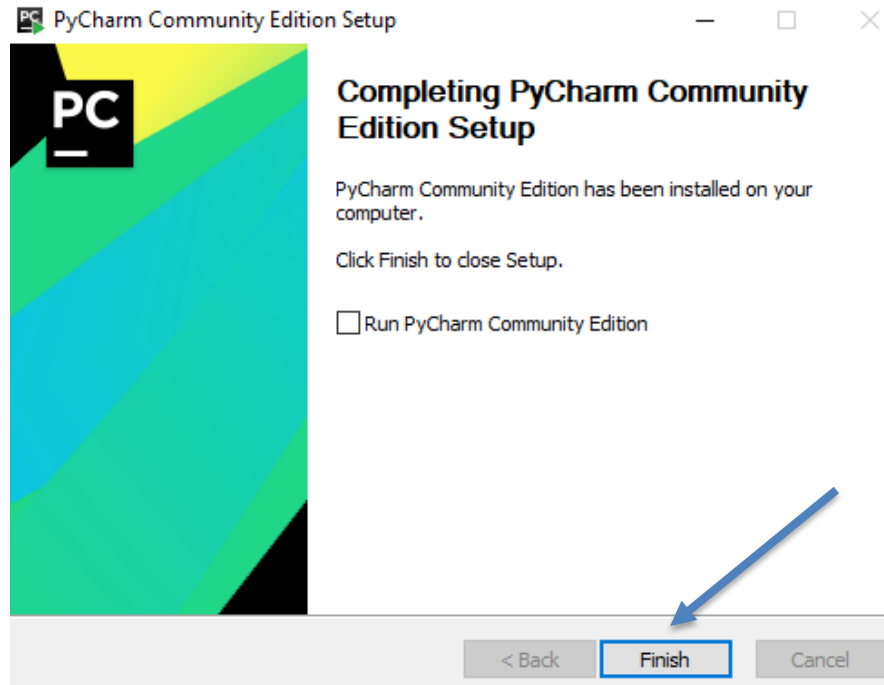




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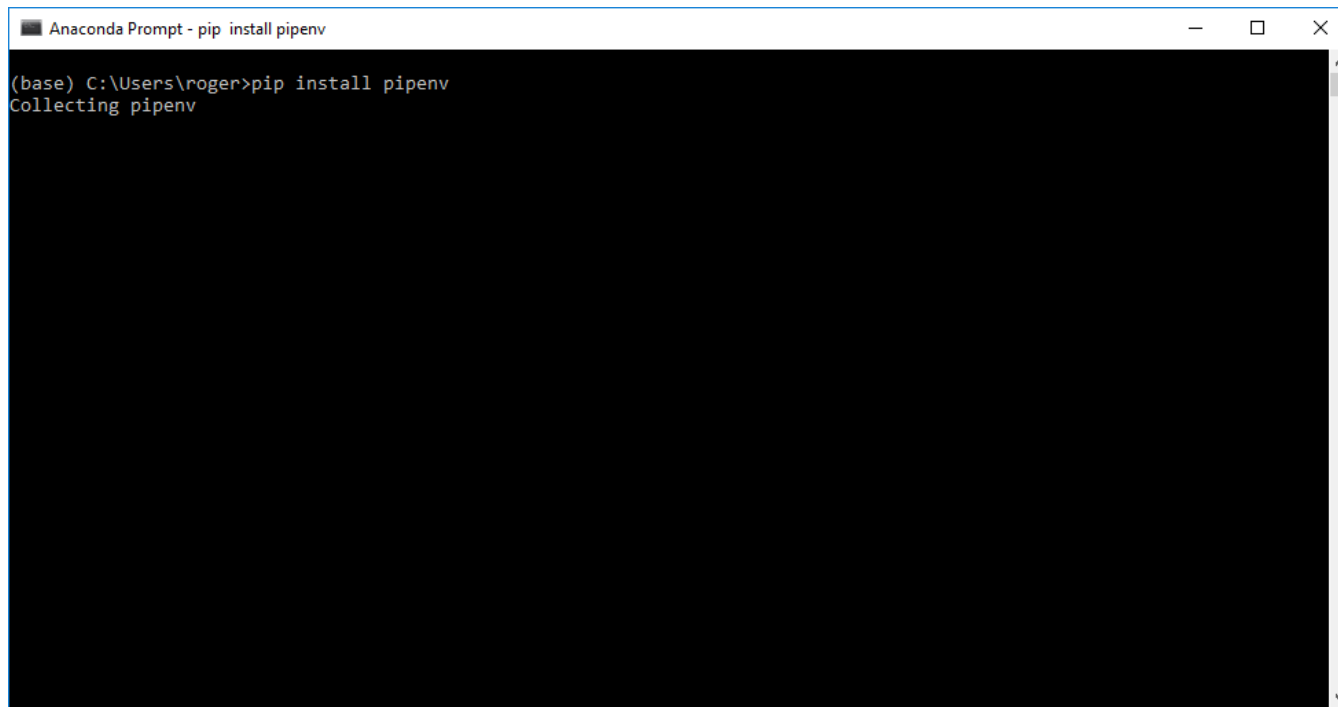




Installation procedure

Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)

1. From the Windows Start menu, type “Anaconda prompt” and open it
2. Run the comand: `pip install pipenv`



```
Anaconda Prompt - pip install pipenv
(base) C:\Users\roger>pip install pipenv
Collecting pipenv
```

Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)

To create the virtual environment required to run the model using the terminal (if you prefer to do it using a graphical user interface, move to the next slide):

1. Open the terminal and move to the Project folder
2. Run the following command:

```
pipenv install
```

3. To activate the virtual environment, run the following command:

```
pipenv shell
```

4. Everything is ready to run the first simulation, please run the following command to see the parameters you can use to parametrize the simulation:

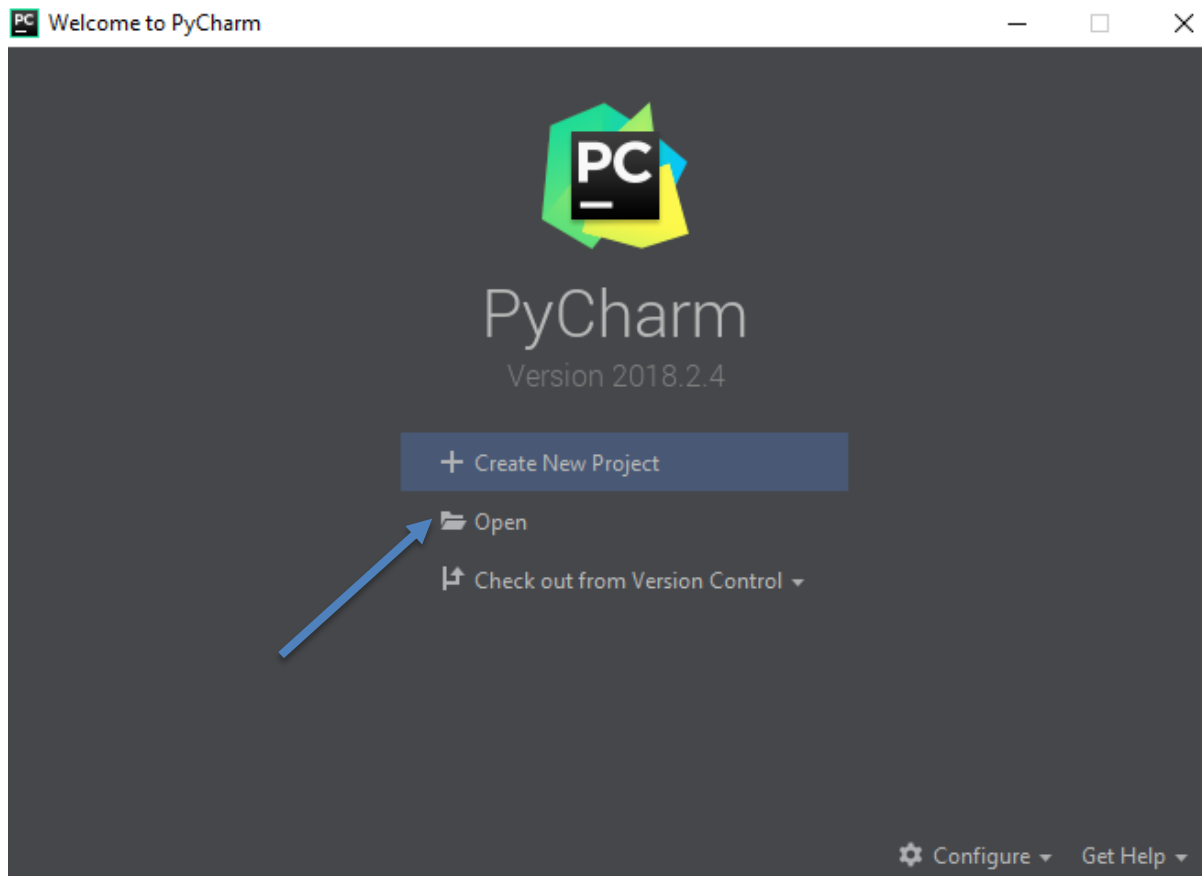
```
python run.py -h
```



Installation procedure

Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)

1. From the Windows Start menu, type “Pycharm” and open it, then click on Open

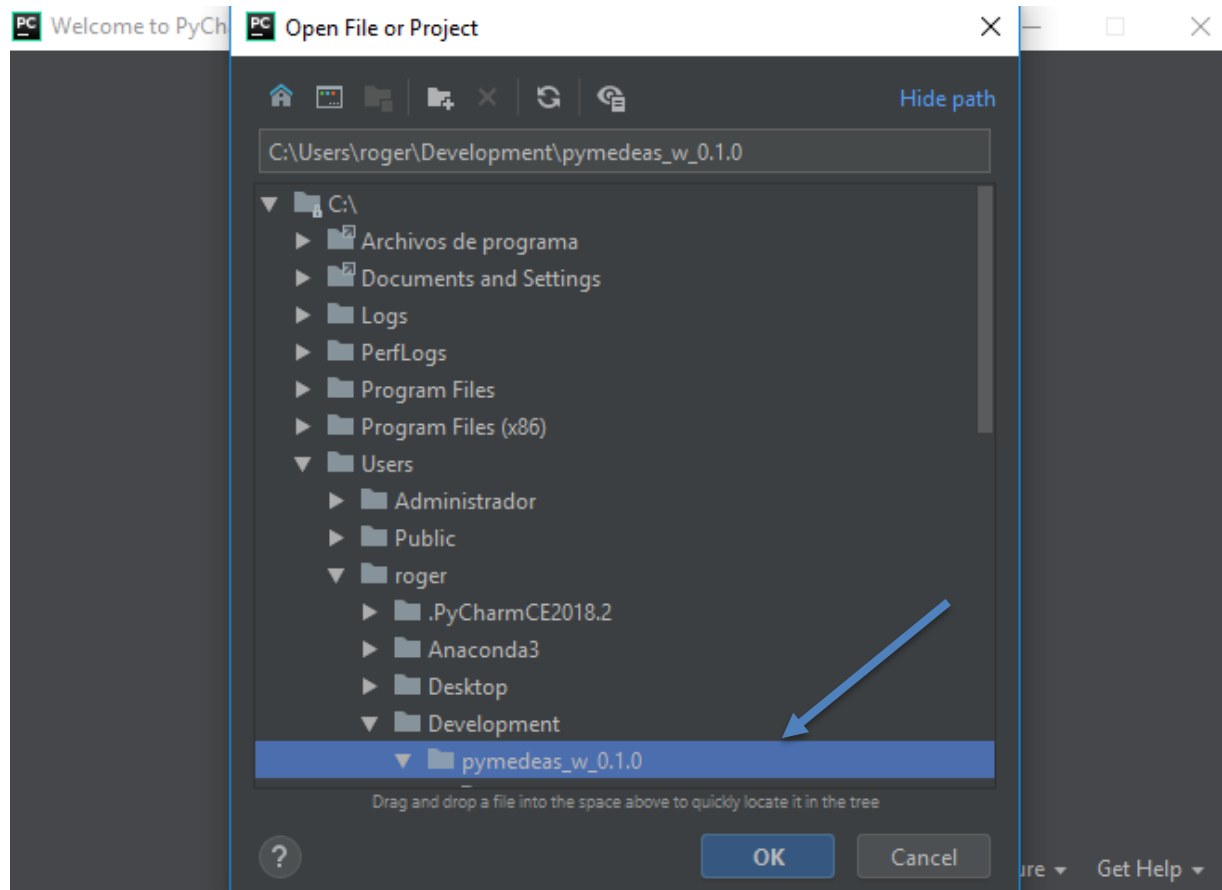




Installation procedure

Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)

2. Select the Project folder

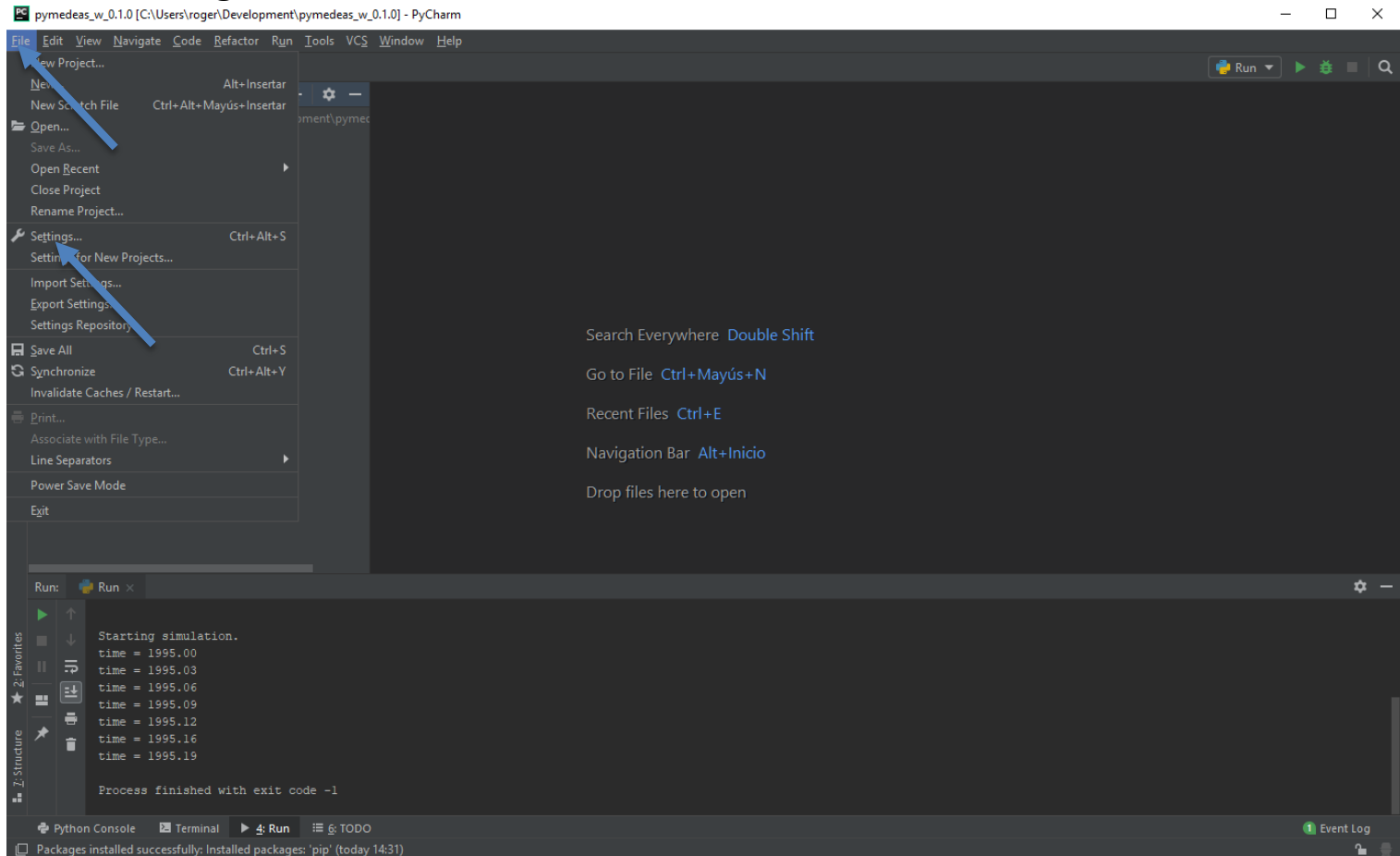




Installation procedure

Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)

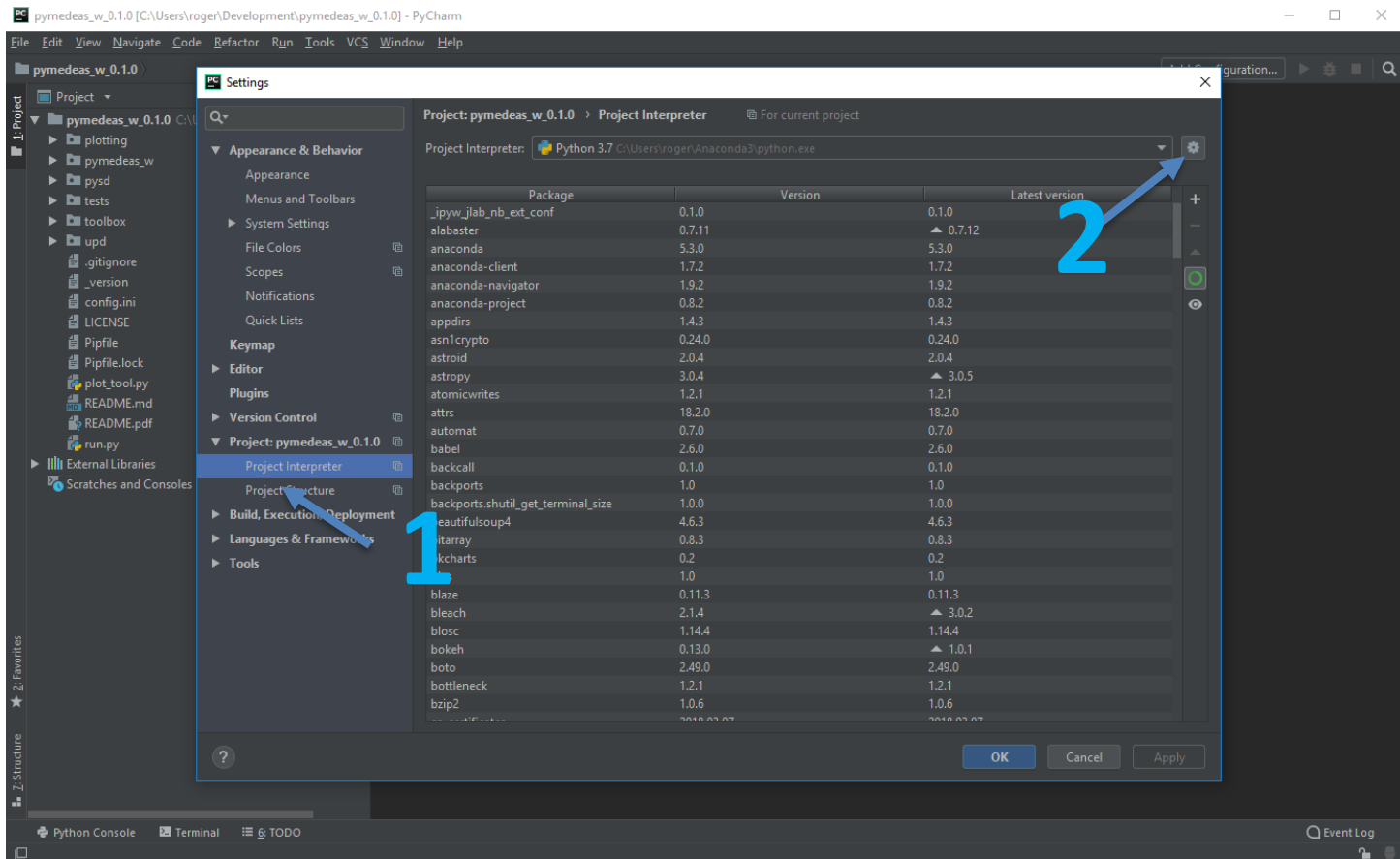
3. Go to: File\Settings





Installation procedure

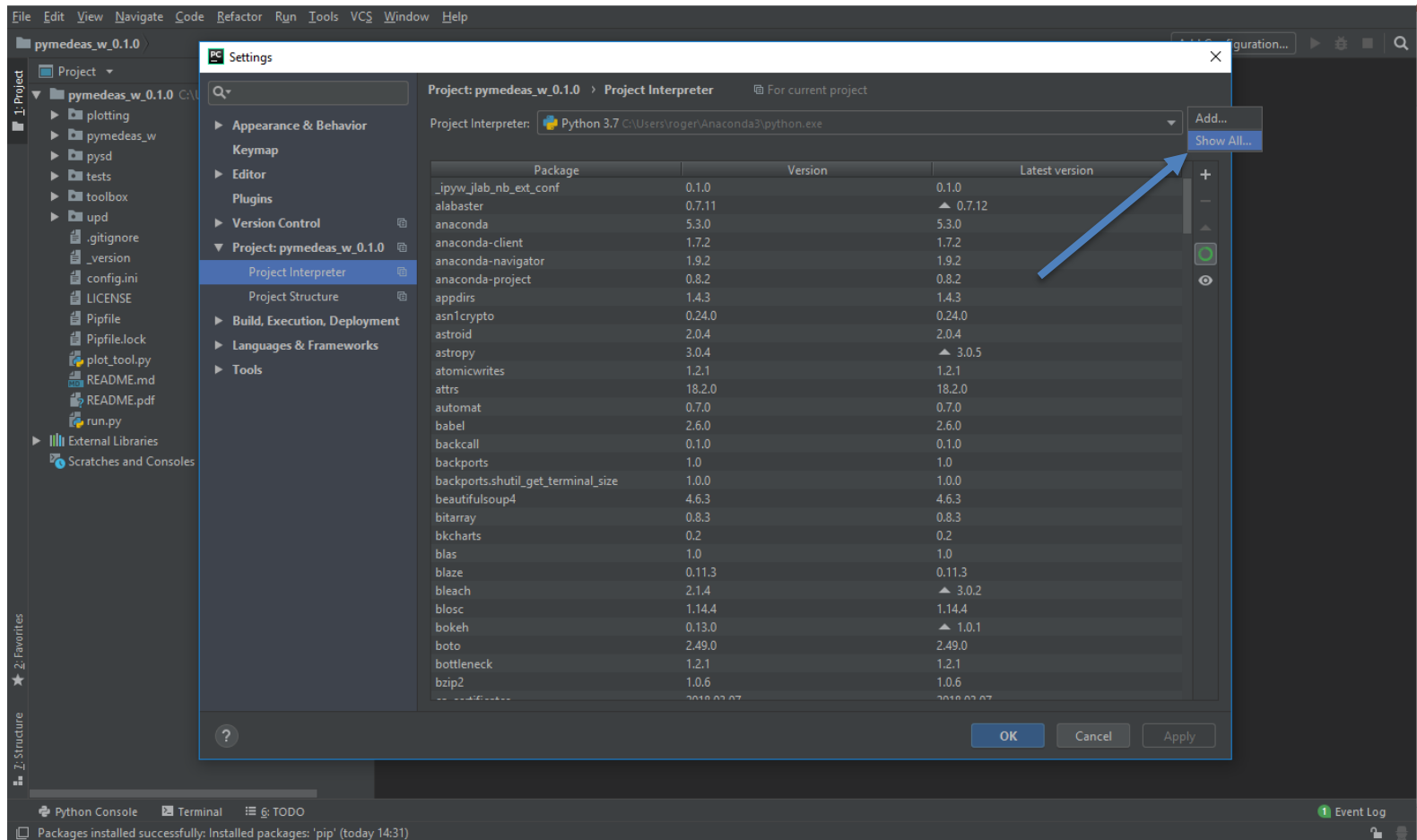
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Installation procedure

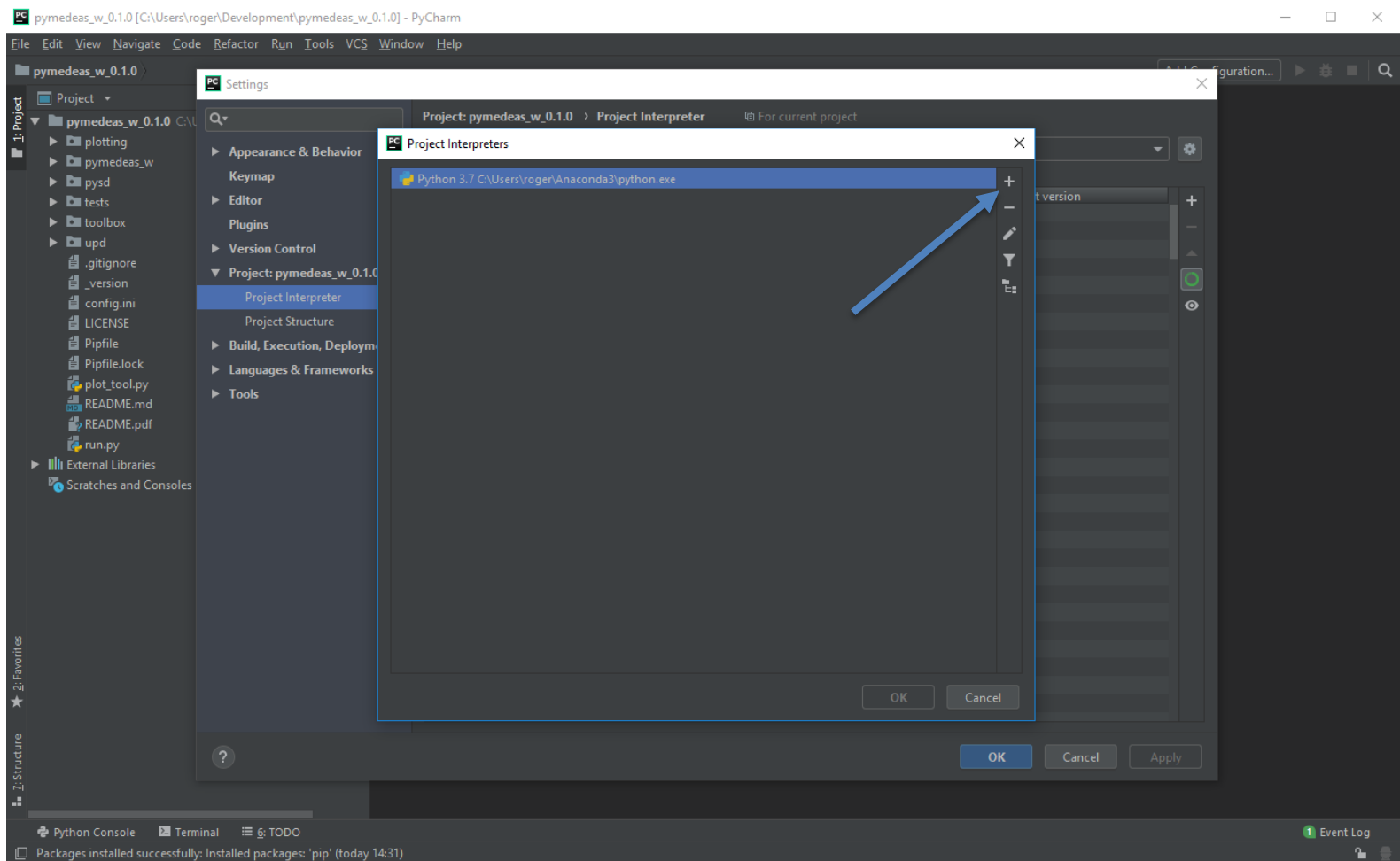
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Installation procedure

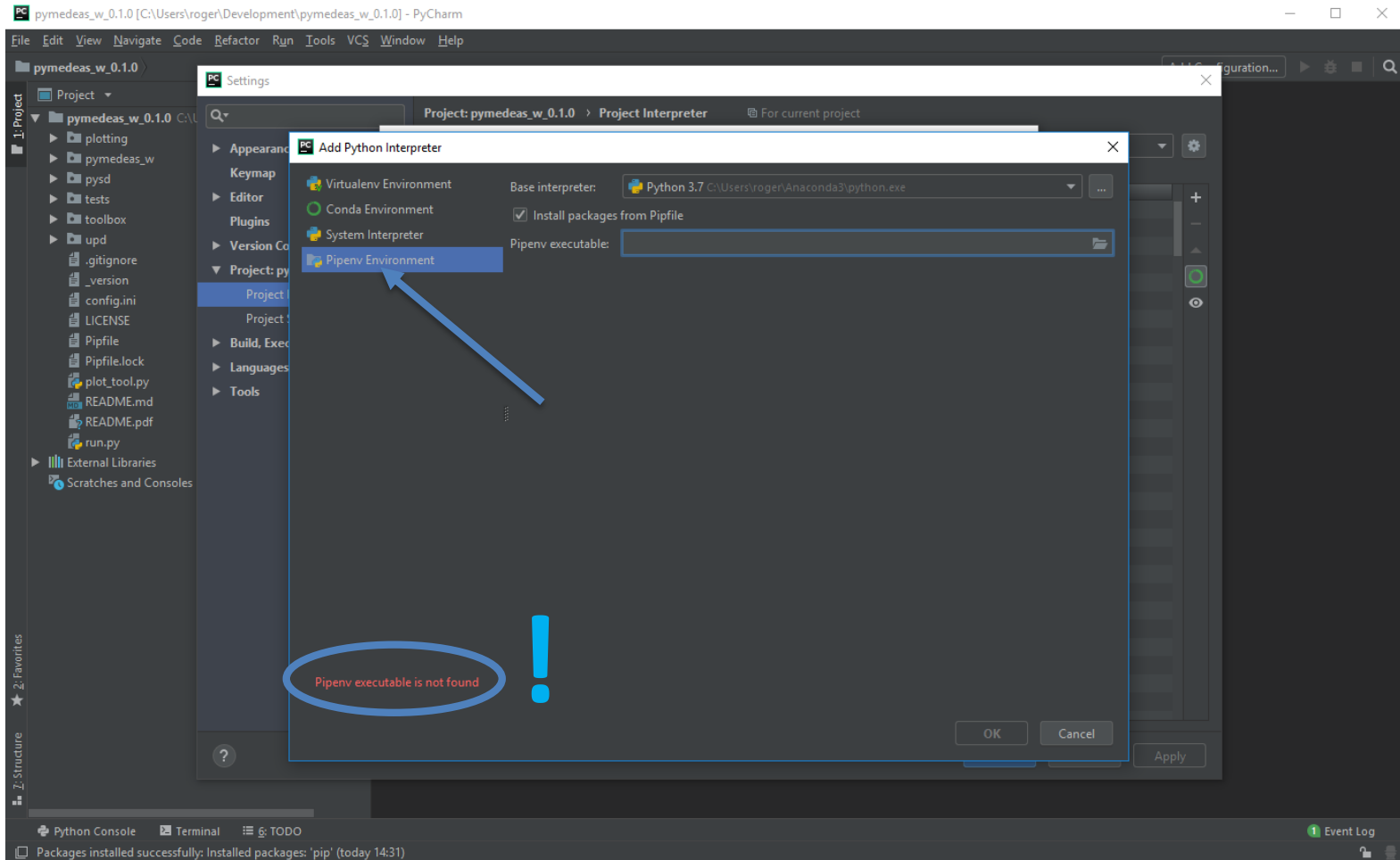
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Installation procedure

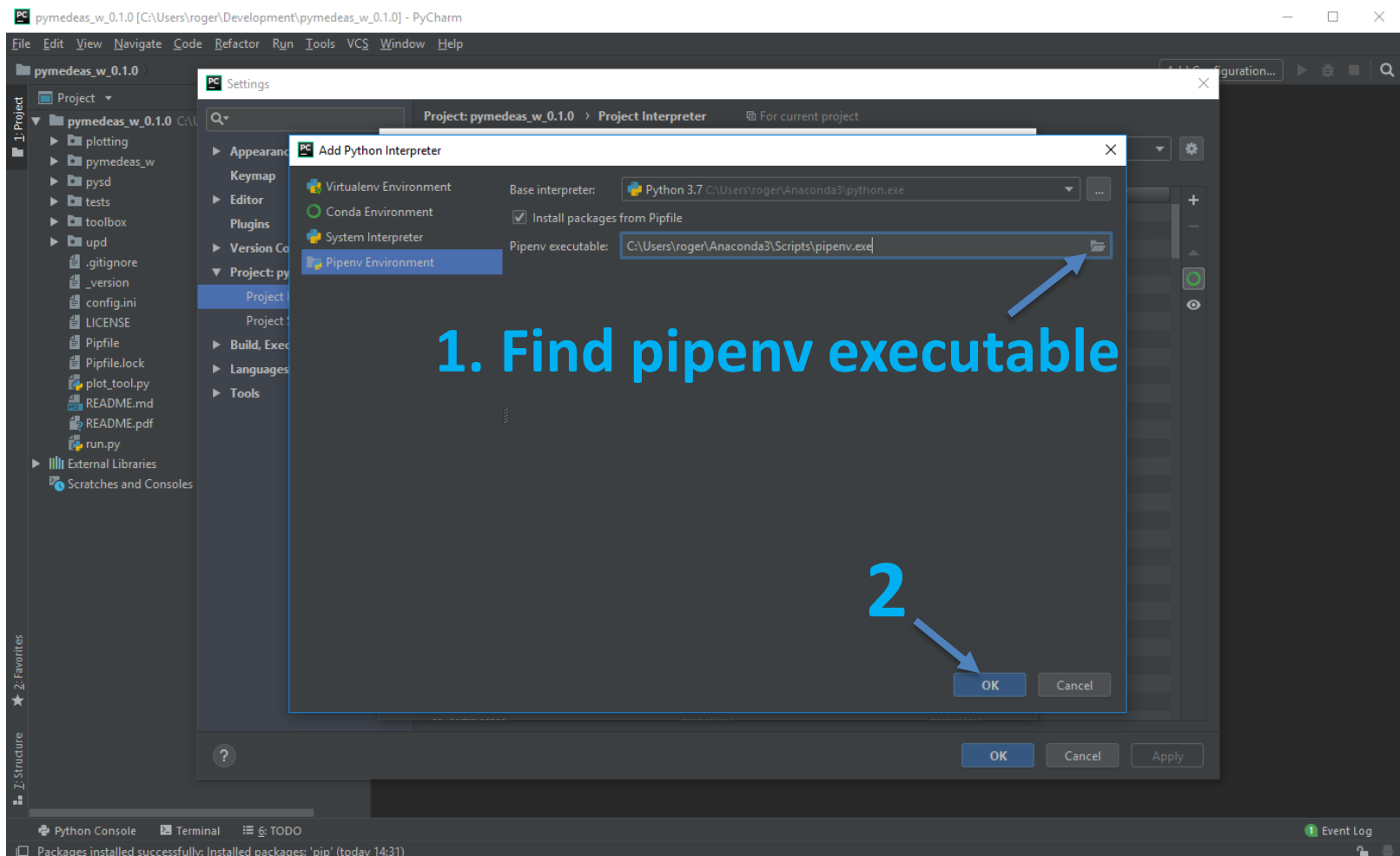
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Installation procedure

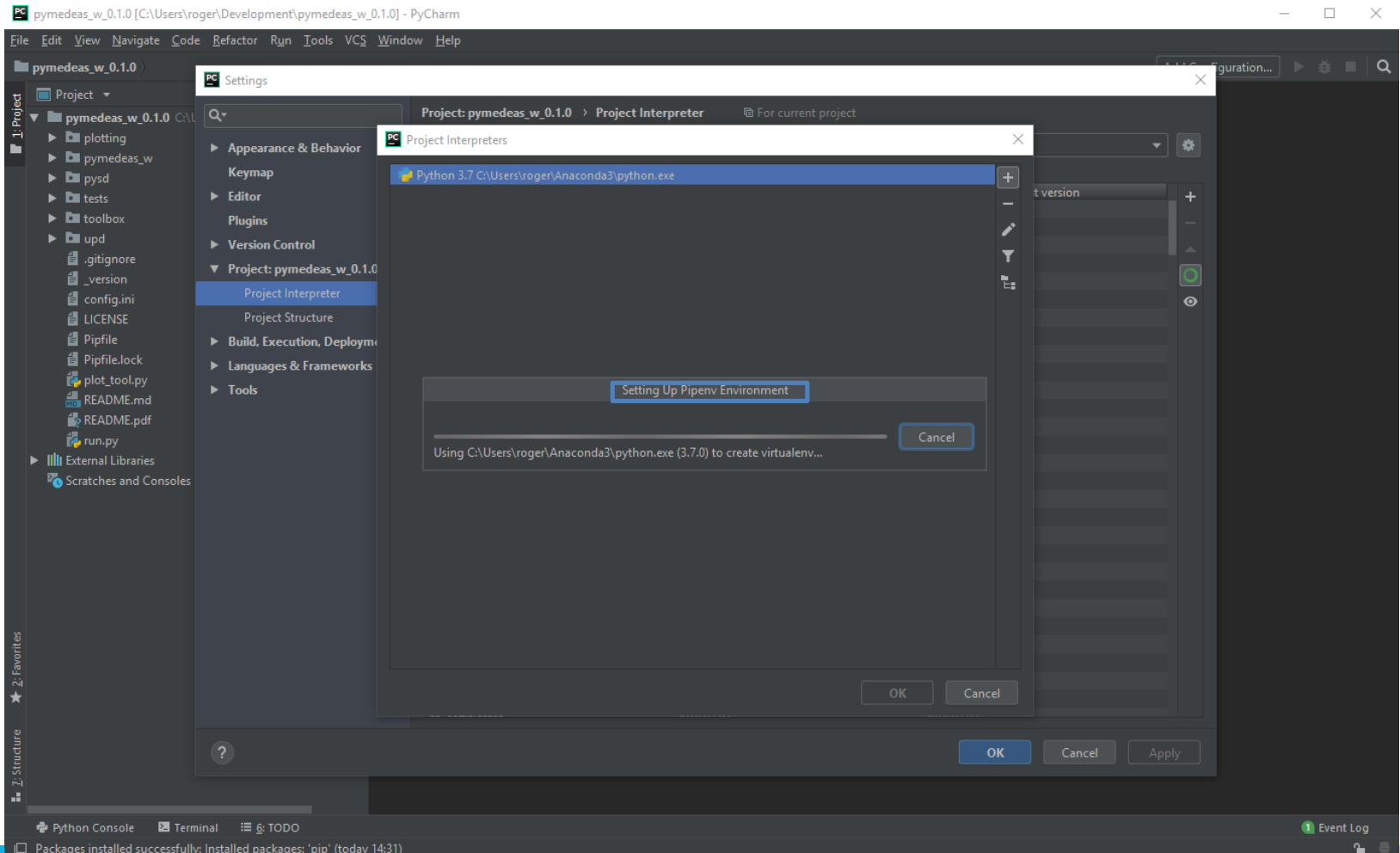
Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)





Installation procedure

Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)





Installation procedure

Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)

pymedeas_w_0.1.0 [C:\Users\roger\Development\pymedeas_w_0.1.0] - PyCharm

Settings

Project: pymedeas_w_0.1.0 > Project Interpreter

Project Interpreters

Failed to Create Interpreter

Executed command:

```
C:\Users\roger\Anaconda3\Scripts\pipenv.exe --python C:\Users\roger\Anaconda3\python.exe install --dev
```

Error occurred:

Error Running Pipenv

Command output:

```
Creating a virtualenv for this project...
Pipfile: C:\Users\roger\Development\pymedeas_w_0.1.0\Pipfile
Using C:\Users\roger\Anaconda3\python.exe (3.7.0) to create virtualenv...
Running virtualenv with interpreter C:\Users\roger\Anaconda3\python.exe
Using base prefix 'C:\\Users\\roger\\Anaconda3'
New python executable in C:\Users\roger\virtualenvs\pymedeas_w_0.1.0-DYhXMrvv\Scripts\python.exe
Installing setuptools, pip, wheel...
done.

Virtualenv location: C:\Users\roger\virtualenvs\pymedeas_w_0.1.0-DYhXMrvv
Could not find a version that satisfies the requirement intel-numpy==1.15.1 (from -r C:\Users\roger\AppData\Local\Temp\pip-install-...
No matching distribution found for intel-numpy==1.15.1 (from -r C:\Users\roger\AppData\Local\Temp\pip-install-...
```

Write down env. path for later use

OK Cancel

OK Cancel Apply

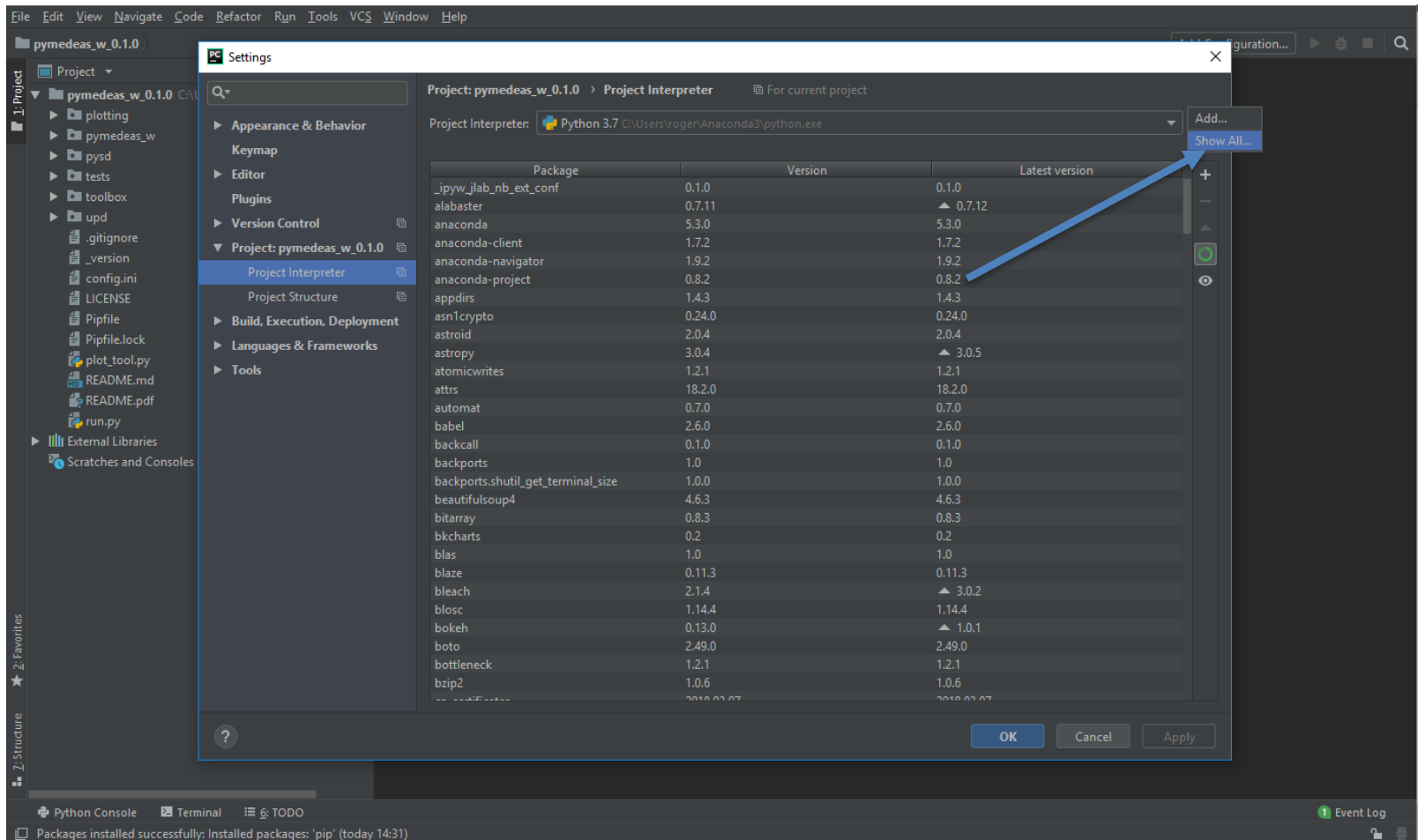
Python Console Terminal 6: TODO

Packages installed successfully: Installed packages: 'pip' (today 14:31)

Event Log

Installation procedure

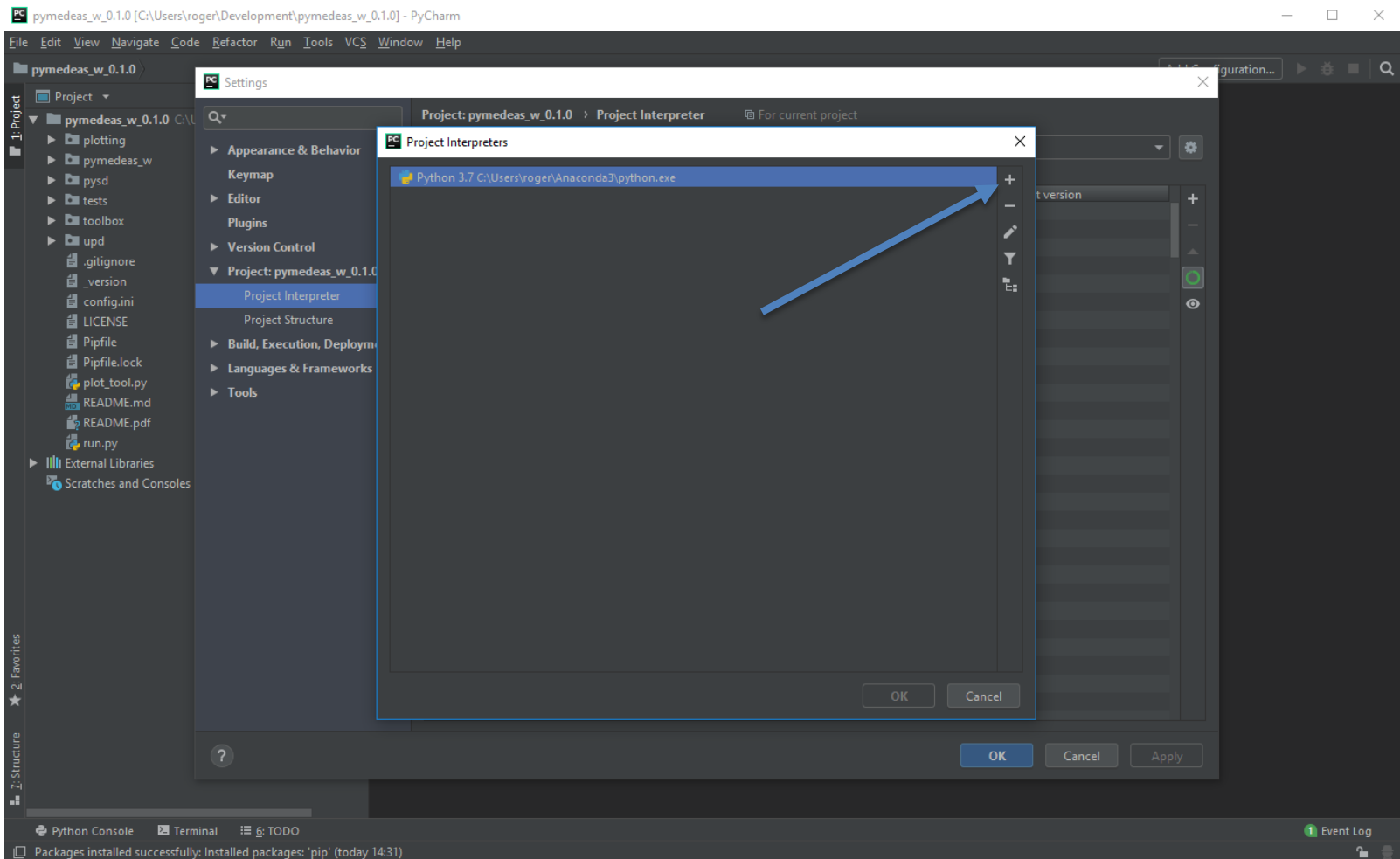
Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)





Installation procedure

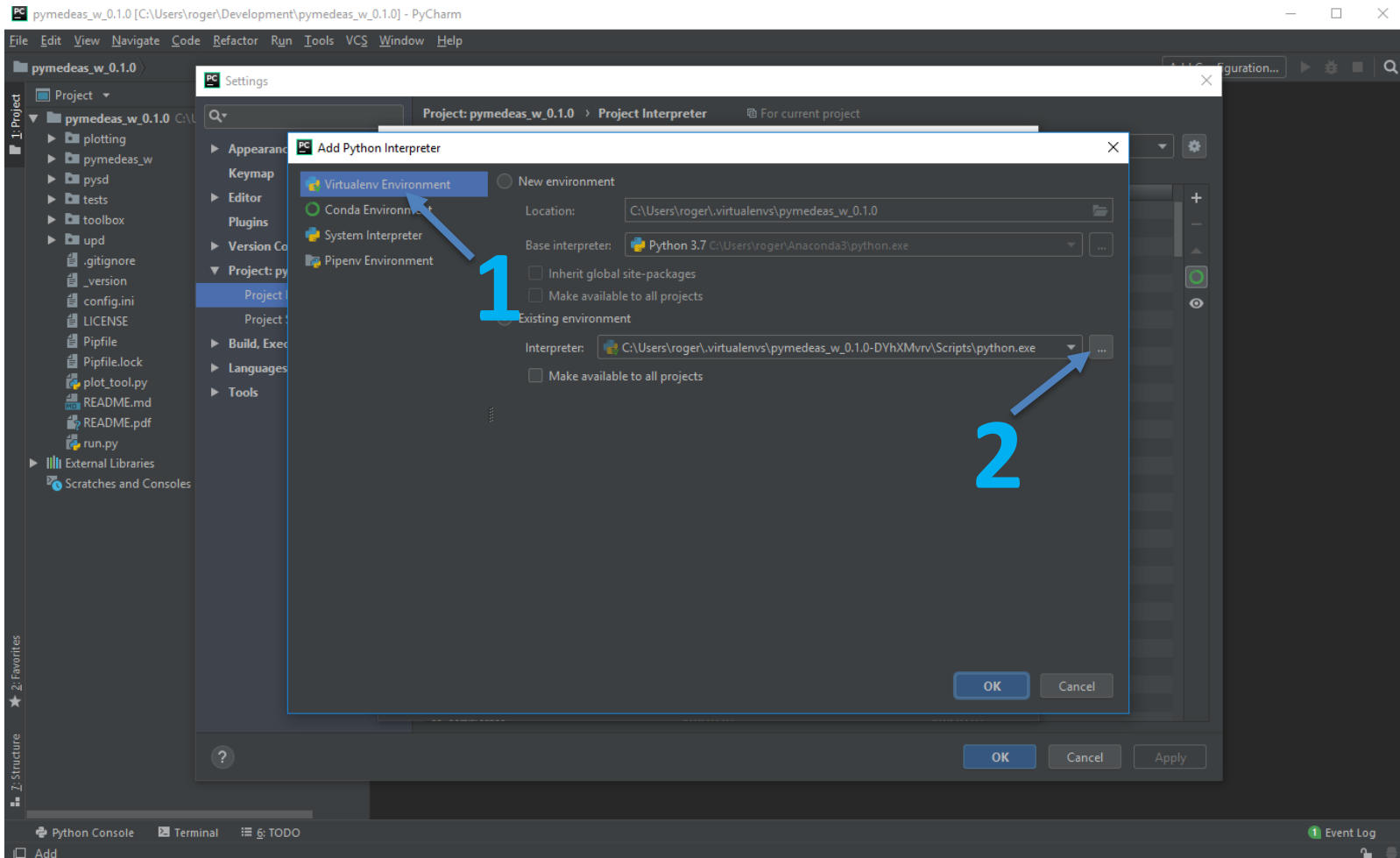
Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)





Installation procedure

Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)





Installation procedure

Installing required Python packages in a virtualenv using pipenv (with PyCharm or from terminal)

Project: pymeas_w_0.1.0 > Project Interpreter For current project

Project Interpreter: Python 3.7 (pymeas_w_0.1.0-DYhXMvrv) C:\Users\roger\virtualenvs\pymeas_w_0.1.0-DYhXMvrv\Scripts\python.exe

Package	Version	Latest version
Cython	0.29	0.29
Jinja2	2.10	2.10
MarkupSafe	1.0	1.0
Pillow	5.3.0	5.3.0
Pygments	2.2.0	2.2.0
Send2Trash	1.5.0	1.5.0
Unidecode	1.0.22	1.0.22
XlsxWriter	1.1.1	▲ 1.1.2
atomicwrites	1.2.1	1.2.1
attrs	18.2.0	18.2.0
backcall	0.1.0	0.1.0
bleach	3.0.2	3.0.2
certifi	2018.10.15	2018.10.15
configparser	3.5.0	3.5.0
cycler	0.10.0	0.10.0
decorator	4.3.0	4.3.0
deepdish	0.3.6	0.3.6
defusedxml	0.5.0	0.5.0
dill	0.2.8.2	0.2.8.2
entrypoints	0.2.3	0.2.3
et-xmlfile	1.0.1	1.0.1
funcsigs	1.0.2	1.0.2
icc-rt	2019.0	2019.0
intel-openmp	2019.0	2019.0
ipykernel	5.1.0	5.1.0
ipython	7.0.1	▲ 7.1.1
ipython-genutils	0.2.0	0.2.0
ipywidgets	7.4.2	7.4.2

OK Cancel Apply

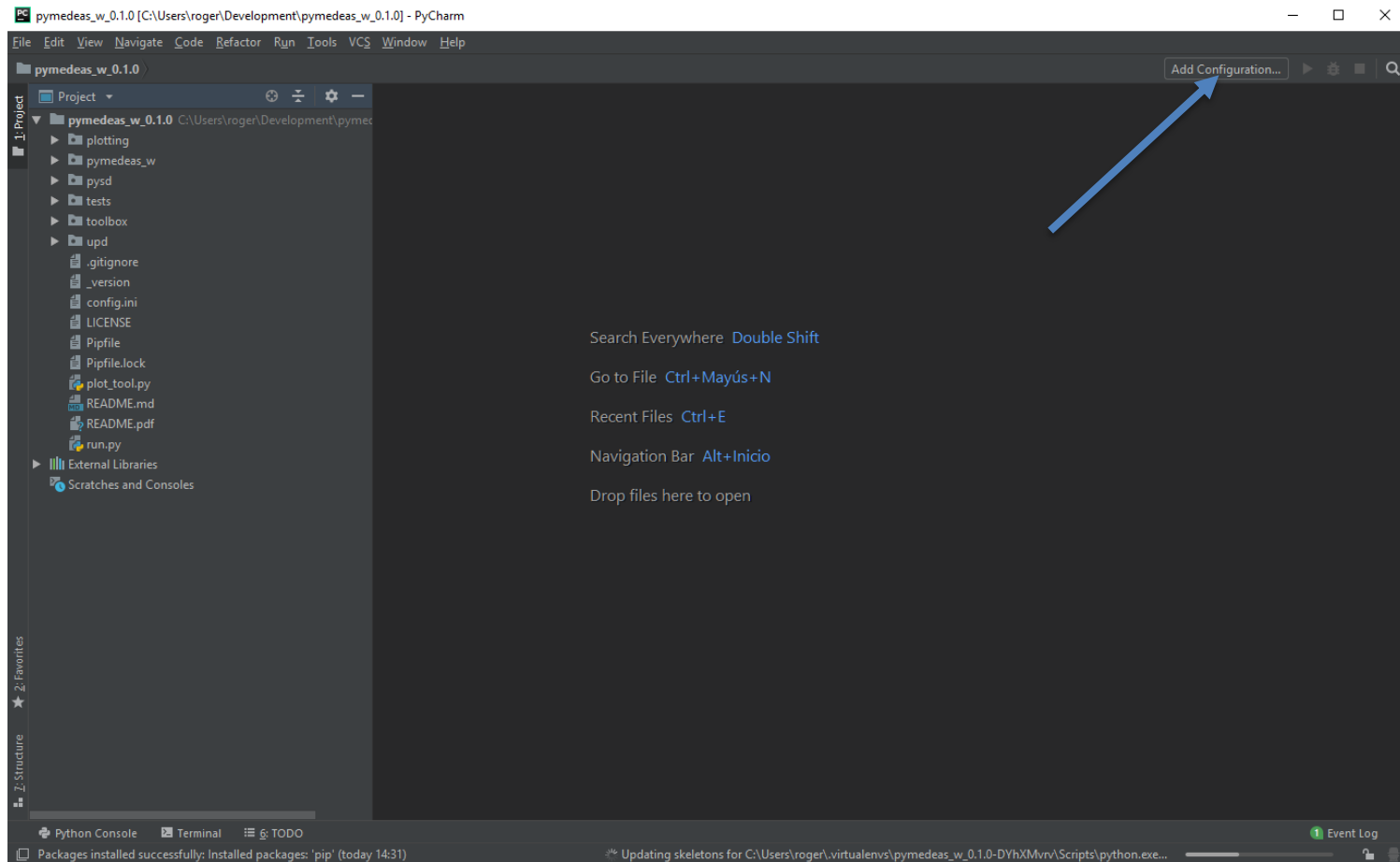
Python Console Terminal TODO

Packages installed successfully: Installed packages: 'pip' (today 14:31)



Installation procedure

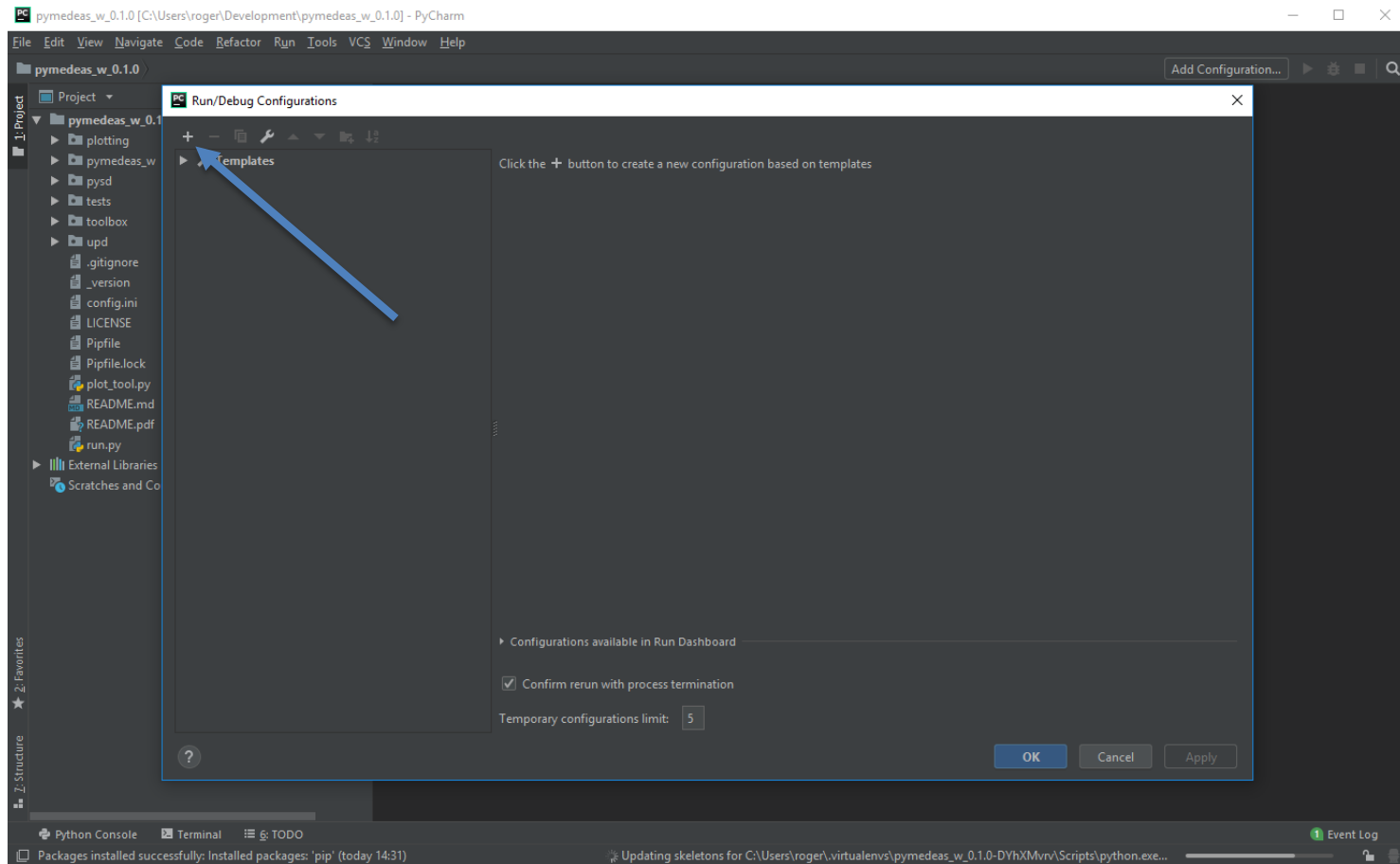
Configuring Pycharm to run the model





Installation procedure

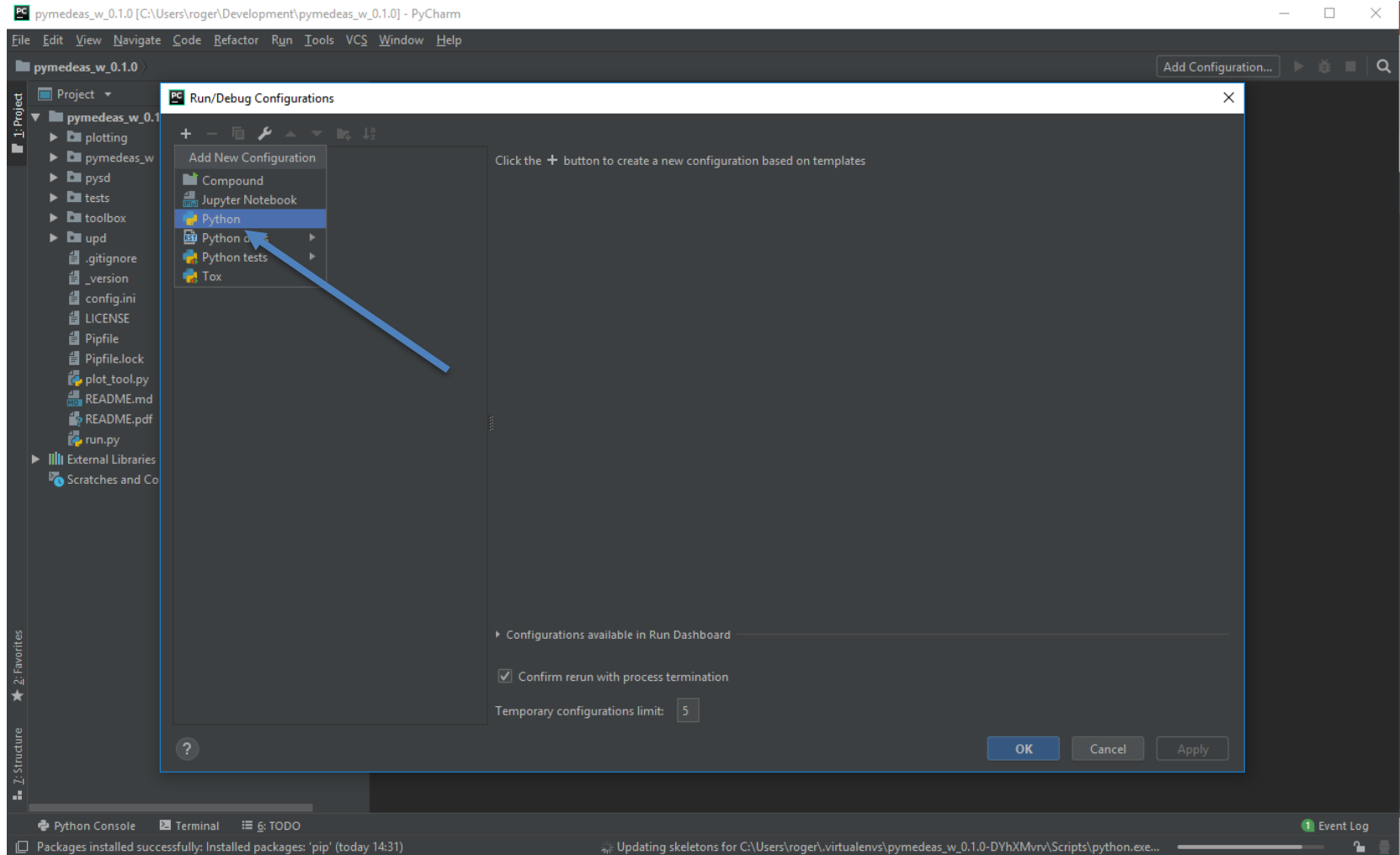
Configuring Pycharm to run the model





Installation procedure

Configuring Pycharm to run the model





Installation procedure

Configuring Pycharm to run the model

PC pymedeas_w_0.1.0 [C:\Users\roger\Development\pymedeas_w_0.1.0] - PyCharm

File Edit View Navigate Code Refactor Run Tools VCS Window Help

pymedeas_w_0.1.0

Project

- pymedeas_w_0.1.0
 - plotting
 - pymedeas_w
 - pysd
 - tests
 - toolbox
 - upd
 - .gitignore
 - _version
 - config.ini
 - LICENSE
 - Pipfile
 - Pipfile.lock
 - plot_tool.py
 - README.md
 - README.pdf
 - run.py
- External Libraries
- Scratches and Co

Run: Run x

Starting time = 19
time = 19
time = 19
time = 19
time = 19
time = 19
time = 19
time = 19
time = 19
time = 19

Process

Python Console Terminal Run TODO

Packages installed successfully: Installed packages: 'pip' (today 14:31)

Run/Debug Configurations

Name: Run

Script path: C:\Users\roger\Development\pymedeas_w_0.1.0\run.py

Parameters: -s -x bau

Environment

Environment variables: PYTHONUNBUFFERED=1

Python interpreter: Python 3.7 (pymedeas_w_0.1.0-DYhXMrvv)

Interpreter options:

Working directory: C:\Users\roger\Development\pymedeas_w_0.1.0

☒ Add content roots to PYTHONPATH

☒ Add source roots to PYTHONPATH

Execution

☐ Emulate terminal in output console

☐ Run with Python console

☐ Redirect input from:

Before launch: Activate tool window

There are no tasks to run before launch

☐ Show this page ☒ Activate tool window

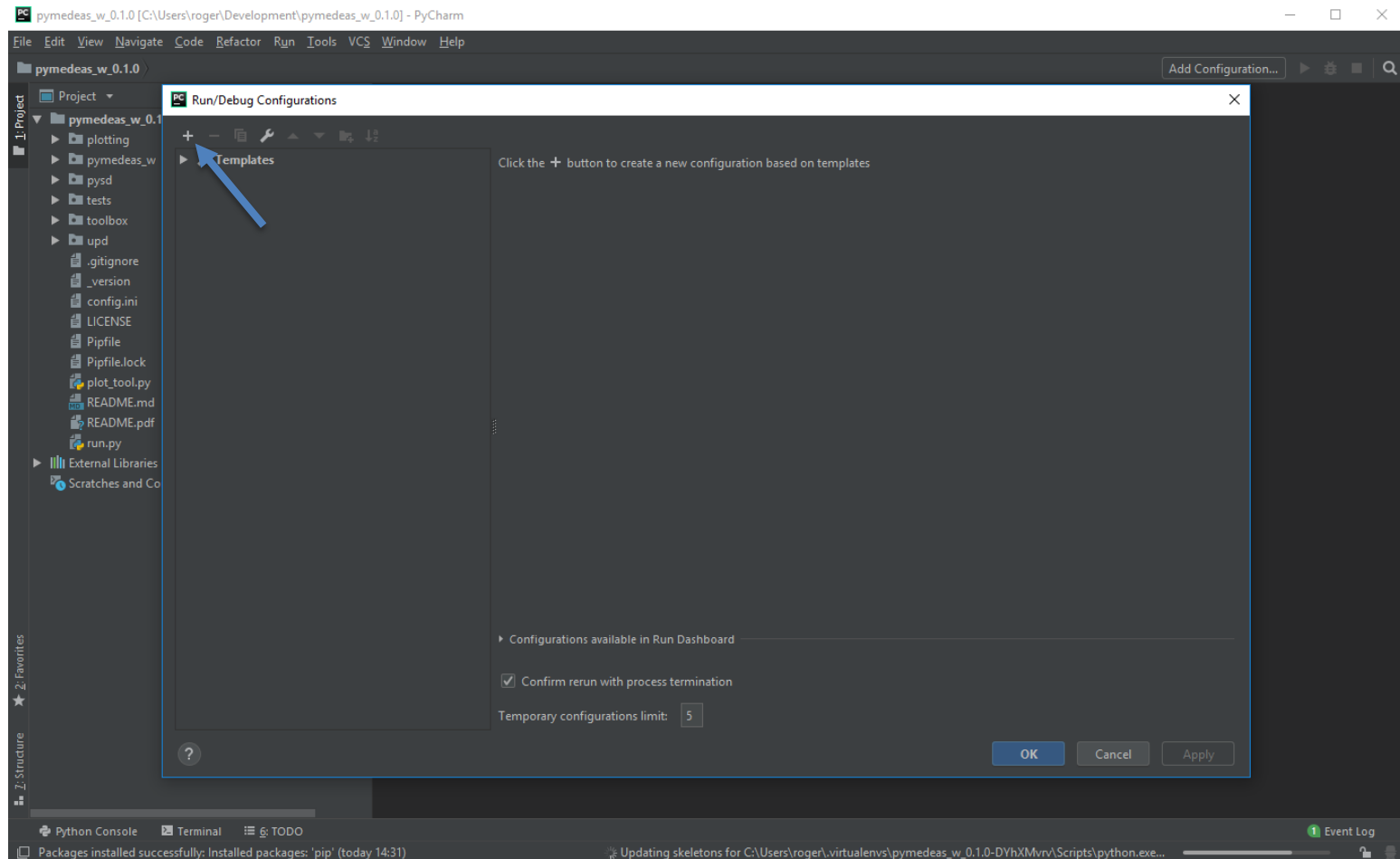
OK Close Apply

1 2 3 4

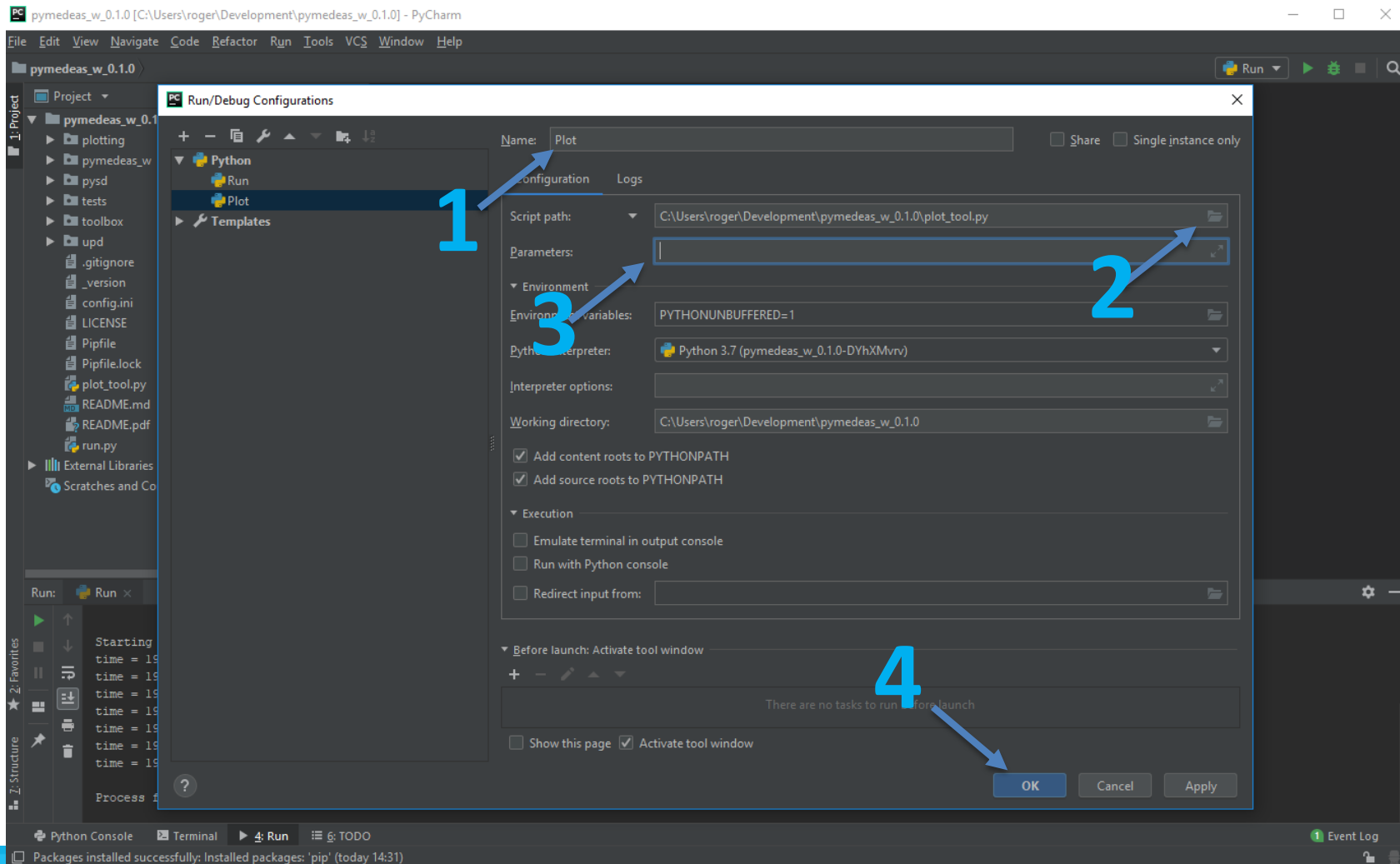


Installation procedure

Configuring Pycharm to run the model



Configuring Pycharm to run the model





Installation procedure

Running a test simulation

