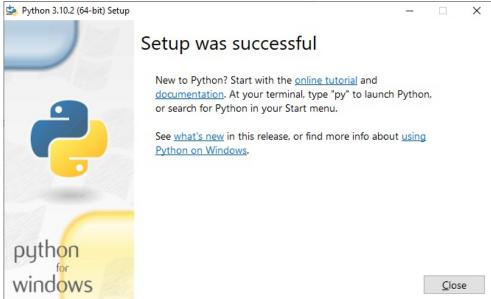
Software used during the semester

- Python 3 (http://www.python.org/downloads/windows) 3.9 version or later
- RTKLIB Demo 5/rtkexplorer (https://github.com/rtklibexplorer/RTKLIB/releases) latest version
- CloudCompare (http://www.danielgm.net/cc/release/) 2.11+, stable version

Each software is free and open source and available for Windows, Linux and macOS. Please download and install them on your machine. You can use your laptop during the classes or the limited number of computers in our lab.

Help for Python Windows installation Python 3.10.2 (64-bit) Setup × Install Python 3.10.2 (64-bit) Select Install Now to install Python with default settings, or choose Customize to enable or disable features. Install Now C:\Users\Zoli\AppData\Local\Programs\Python\Python310 Includes IDLE, pip and documentation Creates shortcuts and file associations → Customize installation Choose location and features ✓ Install launcher for all users (recommended) Add Python 3.10 to PATH Cancel Python 3.10.2 (64-bit) Setup X



Disable MAX_PATH limit in the second window if you are asked.

Open a command window (CMD.EXE) and type "py", the Python interpreter should start. To install Python packages use "pip" command at the command prompt (e.g. pip install numpy).

External Python packages used during the semester (you have to install them using pip):

- numpy
- pandas
- matplotlib
- ezdxf
- · opency-python
- opency-contrib-python
- wget
- scipy

To install the packages on Windows

- 1. Search for cmd.exe (beside the magnifying glass in the status line)
- 2. In the opening command windows type in the folloong line pip install numpy pandas matplotlib ezdxf opency-python opency-contrib-python wget scipy It will take some minutes, depending on the internet bandwidth.
- 3. To test the installation start Python python
- 4. At the Python prompt (>>>) import one of the installed packages
 - >>>import numpy
 - >>> import cv2 # it imports opencv package