

Setup Python Environment

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Installing OpenCV and Pillow - camera library (Optional):	Error! Bookmark not defined.

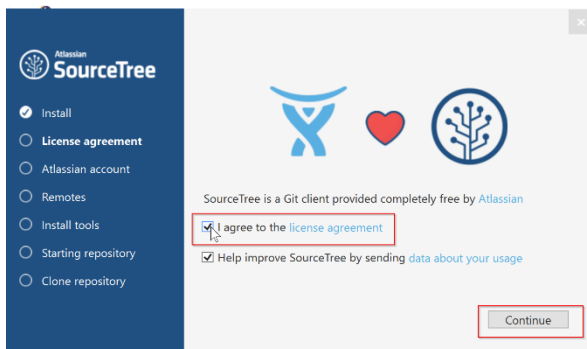
Introduction

This document describes how to get started with the Python development. Setting up python interpreter installing modules, configuring IDE, setting up a new project etc. in a windows environment.

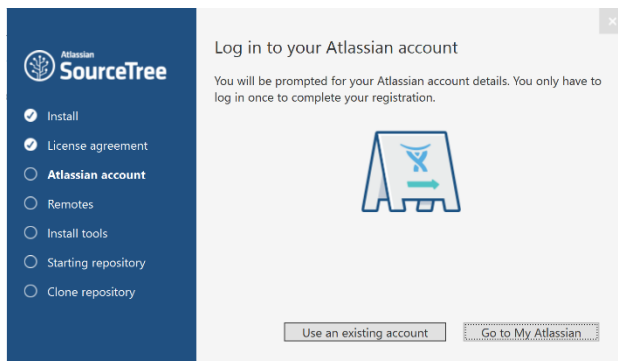
Source control

Download: <https://www.sourcetreeapp.com/download/>

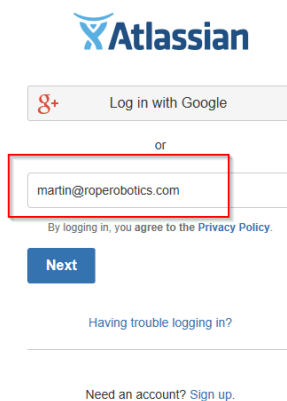
Install with standard setting and lunch application.



Create an account if you don't already have one.

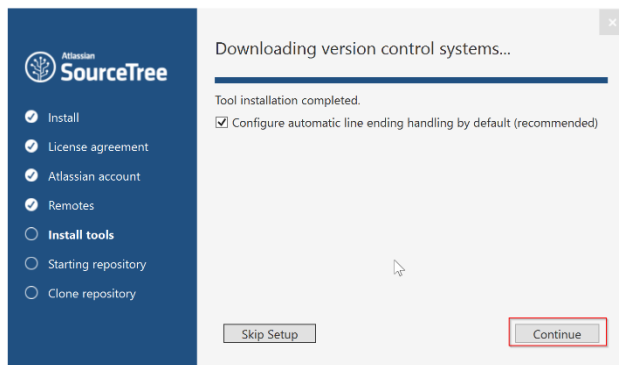
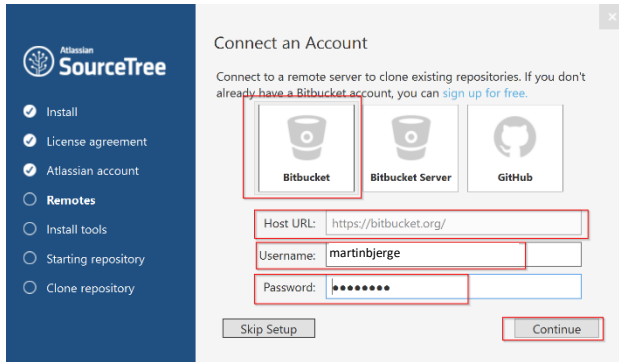


First login, use your E-mail as username:



Next logi use your username and not your E-mail addresse.

You can find your username at the bitbucket webpage. (right top corner: )

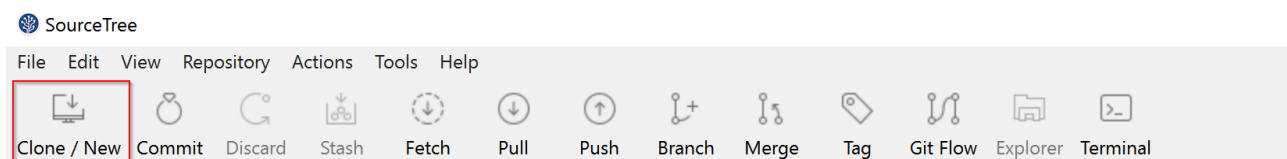
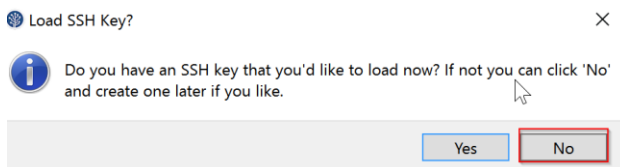
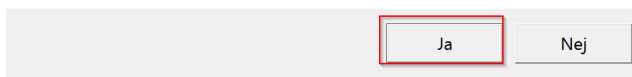


Install global ignore file?

You don't have a global ignore file configured currently, would you like SourceTree to install a default one?

Installing the default global ignore file will ignore common files that you usually don't want to add to source control, such as .exe, .dll, .obj, .suo and common subfolders like 'Debug'.

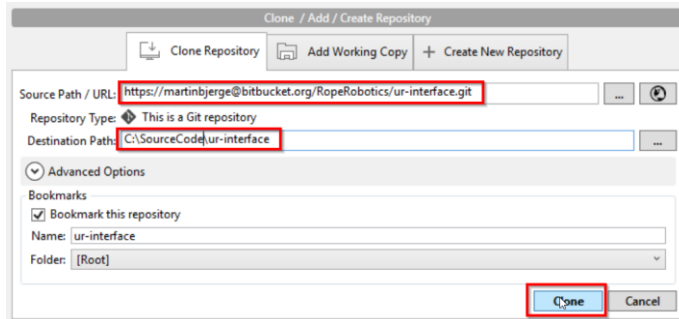
If you would prefer to see all files by default, answer 'No'. You can configure this option later in Tools > Options if you wish.



Following project need to be cloned as default:

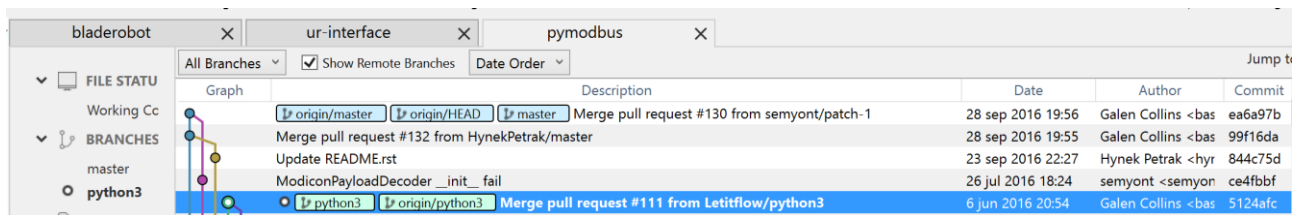
From: <https://bitbucket.org/RopeRobotics/ur-interface.git>

e.g. To: C:\SourceCode\ur-interface



When this is done you also need to clone pymodbus. Open "Clone Repository" as before but enter <https://github.com/bashwork/pymodbus.git> in Source Path and "c:\SourceCode\pymodbus" in Destination path.

When pymodbus is cloned, find the pymodbus tab in SourceTree and locate the "python3" tag – Rightclick on this and choose "Checkout..."



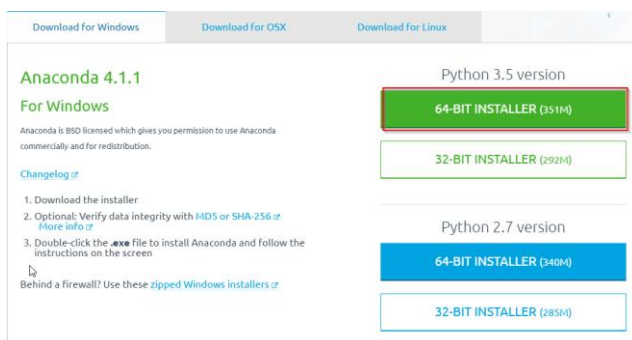
You now have the python3 branch of pymodbus.

Python interpreter (Anaconda)

Anaconda is the leading open data science platform powered by Python.

It can be downloaded from: <https://www.continuum.io/downloads>

Use newest version:



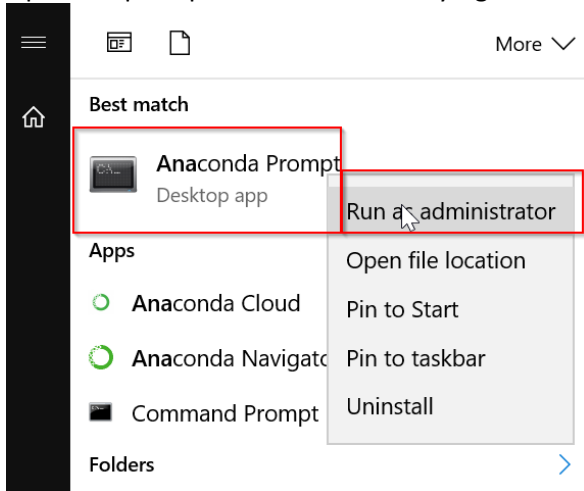
Select Windows 64-bit Installer. Double-click the .exe file to install Anaconda and follow the instructions on the screen.

Remember to install on all users (requires administrator privileges)

Installing modules

Via Anaconda prompt:

Open the prompt as administrator by right click on the CMD icon and selection **“Run as Administrator”**:



```
pip install [module name]
```

Install:

```
pip install --upgrade pip
pip install math3d
pip install ikpy
pip install imutils

pip install pyserial
pip install bitstring
```

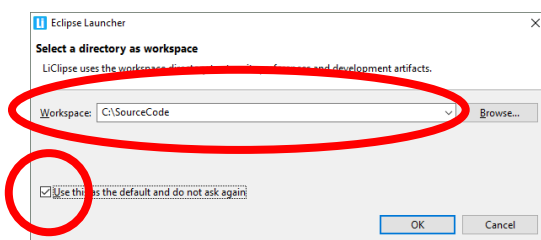
IDE (Lclipse)

Download and install: <http://www.lclipse.com/download.html> (64bit version)

Note: There is a small license fee on this tool.

Do the installation with all the default settings.

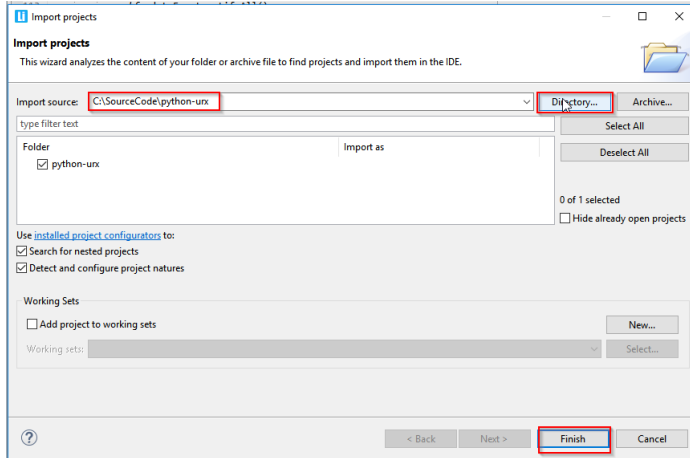
When opening change the Workspace to “C:\SourceCode”



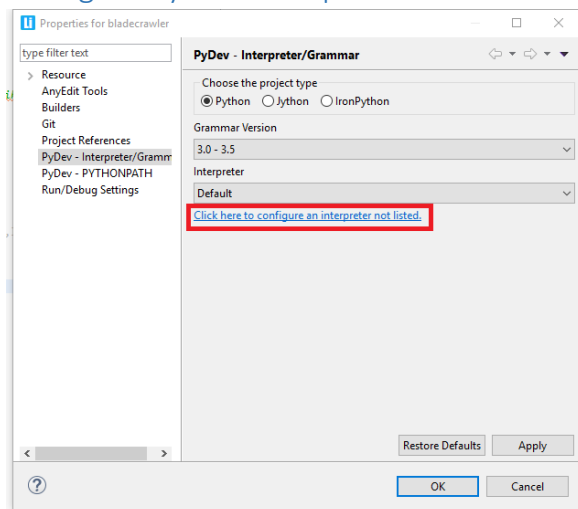
Close Lclipse and reopen

Open Project:

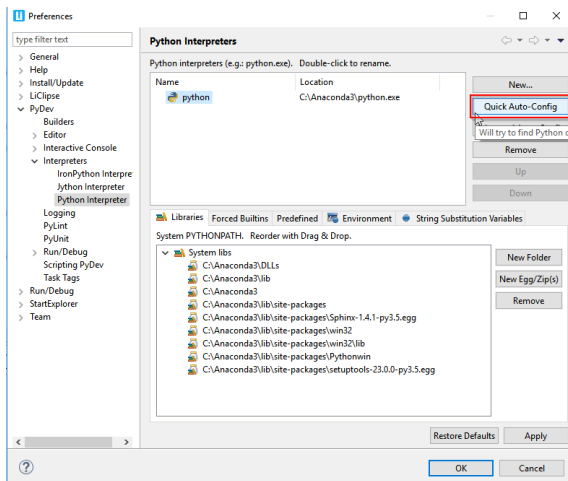
Select directory:



Configure Python interpreter



On the left window, select PyDev-Interpreter and Click the marked area.



If you have more than one interpreter please make sure the Anaconda interpreter is the first one in the list, using the Up/Down buttons.

Run code

