S800 2014: Python Lab 1 – Python Installation

Overview

The goal for this lab is to install the required Python applications to communicate w/ test and measurement instruments using Python scripting.

General Lab Topics

1) Install Keysight IO Libraries
2) Install Keysight N1010A FlexDCA
3) Install Keysight Command Expert
4) Install Anaconda
5) Install PyVisa
6) Install Python.NET

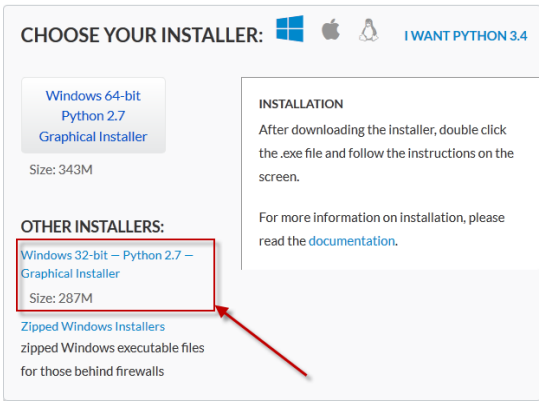
Detailed Lab Instructions

1) **Install Keysight IO Libraries**
   - **a.** Download Keysight IO Libraries 17.0 to Desktop
   - **b.** **http://www.keysight.com/main/software.jspx?cc=US&lc=eng&ckey=1184883&nid=-33002.977662&id=1184883**
   - **c.** Install Keysight IO Libraries

2) **Install N1010A FlexDCA**
   - **a.** Download N1010A FlexDCA
   - **b.** **http://www.keysight.com/main/software.jspx?ckey=2028655&lc=eng&cc=US&nid=-35270.937137&id=2028655&pageMode=CV**
   - **c.** Install N1010A FlexDCA

3) **Install Keysight Command Expert**
   - **a.** Download Keysight Command Expert Desktop
   - **b.** **http://www.keysight.com/main/software.jspx?ckey=2151326&lc=eng&cc=US&nid=-33002.992473&id=2151326&pageMode=CV**
   - **c.** Install Keysight Command Expert

4) **Install Anaconda**
   - **a.** Download 32 bit version of Anaconda for Windows. Note: Keysight Command Expert supports 32 bit versions of Python.
   - **b.** **http://continuum.io/downloads**
   - **c.** Select the installation package highlighted below

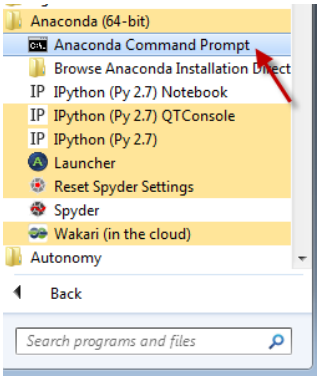


d. Install Anaconda Python 2.7 32-Bit for Windows

5) Install PyVISA

a. Open Anaconda Command Prompt

i. Start -> All Programs -> Anaconda Command Prompt

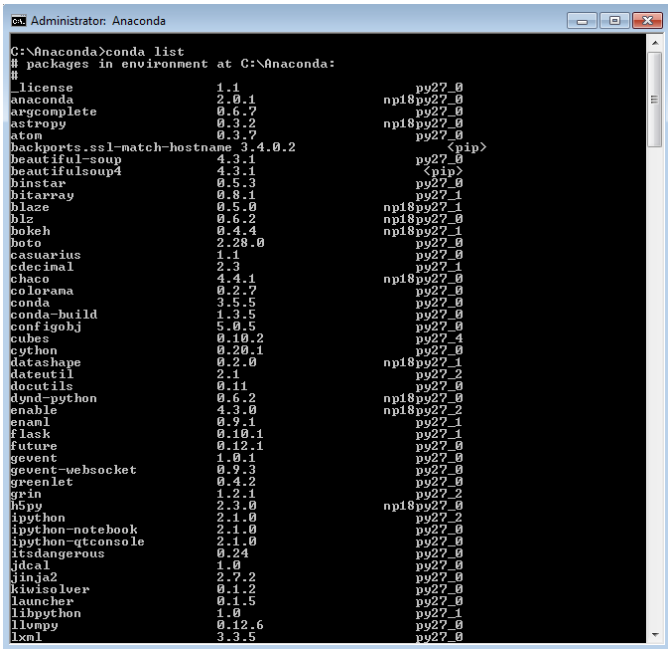


b. View installed packages

i. Type ‘conda list’ at the Anaconda Command Prompt

ii. Press Enter

iii. The installed packages should display in the Command Prompt as shown below.

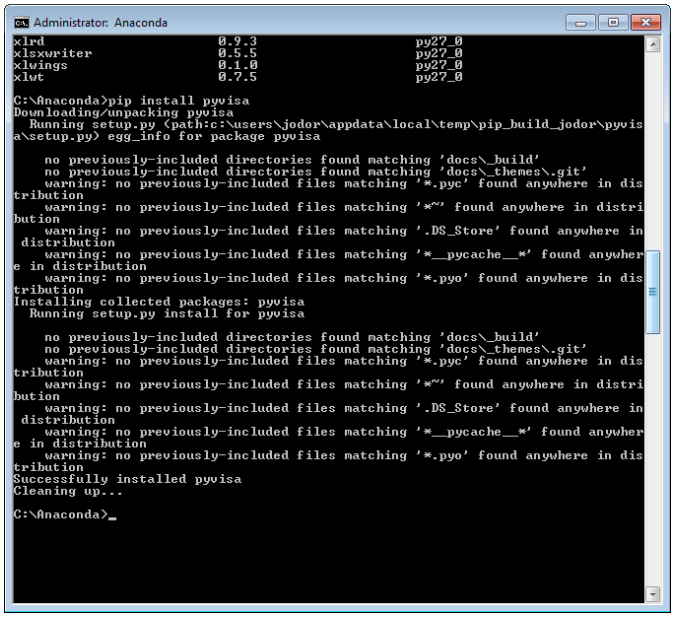


c. Install Pyvisa

i. Type ‘pip install pyvisa’ at Anaconda Command Prompt

ii. Press Enter

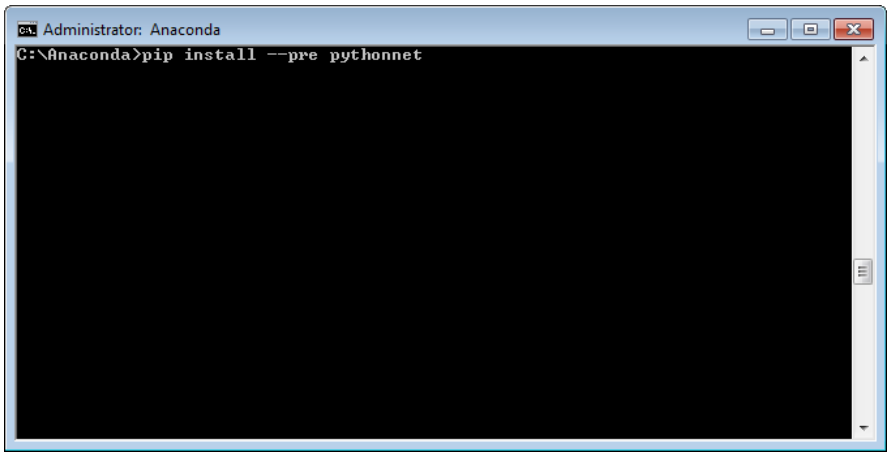
iii. The installation for Pyvisa should proceed as shown below



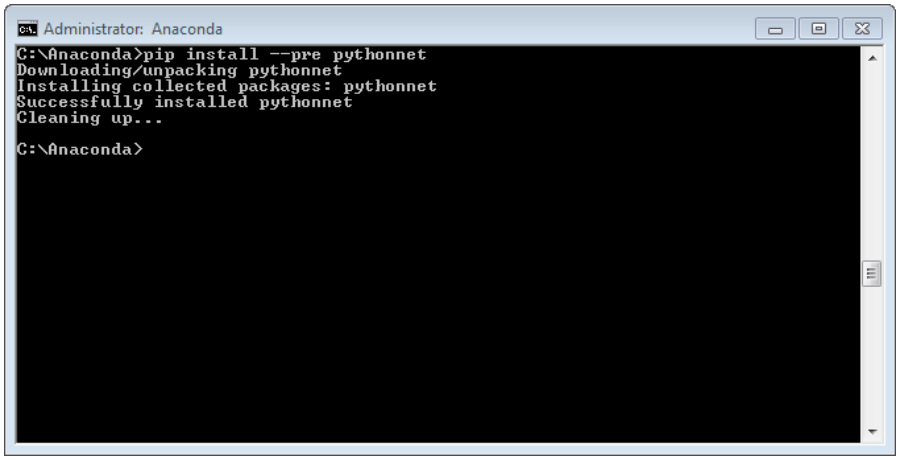
6) Install Python.NET

a. Type ‘pip install –pre pythonnet’ at Anaconda Command Prompt

Note: ‘-‘ before pre is 2x’—‘ as below



b. The installation for Python .NET should proceed as shown below



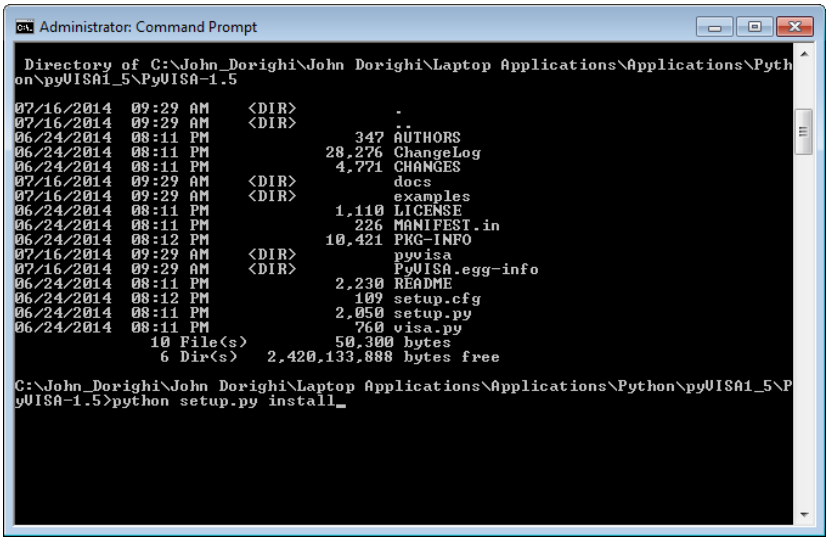
Appendix: Backup Options for Installing PyVISA and Python.NET

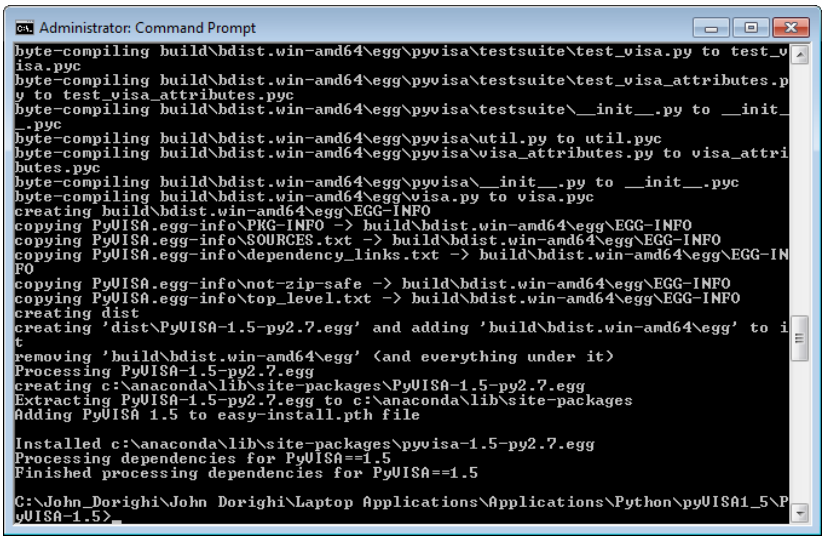
PyVISA Installation Option 2)

Download PyVISA

- https://pypi.python.org/pypi/PyVISA

Install PyVISA



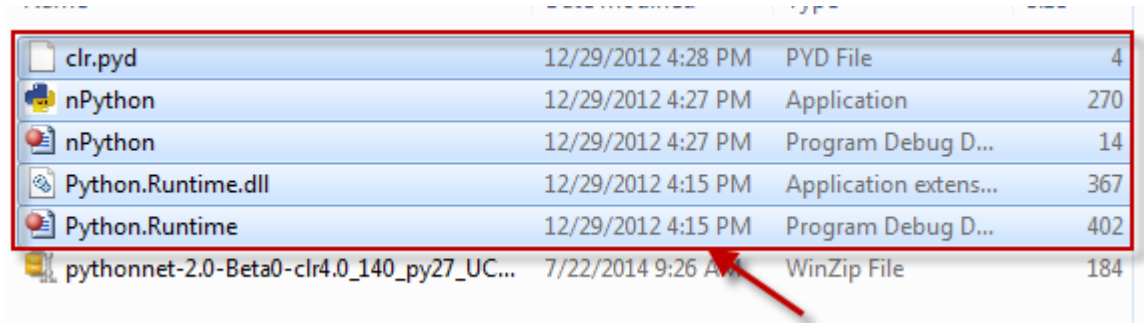


Python.NET Installation Option 2)

Download Python.NET

Unzip

Then Copy the following files



Into the directory: ‘C:\Anaconda’