Setup Python Environment for debugging

Dienstag, 19. März 2019 09:40

1. Check Python Version in NX

NX by clicking the "Developer" tab, then Edit and pasting the following code, then checking the NX log (File/Help/Log File)

```
print (sys.version) #parentheses necessary in python 3.
```

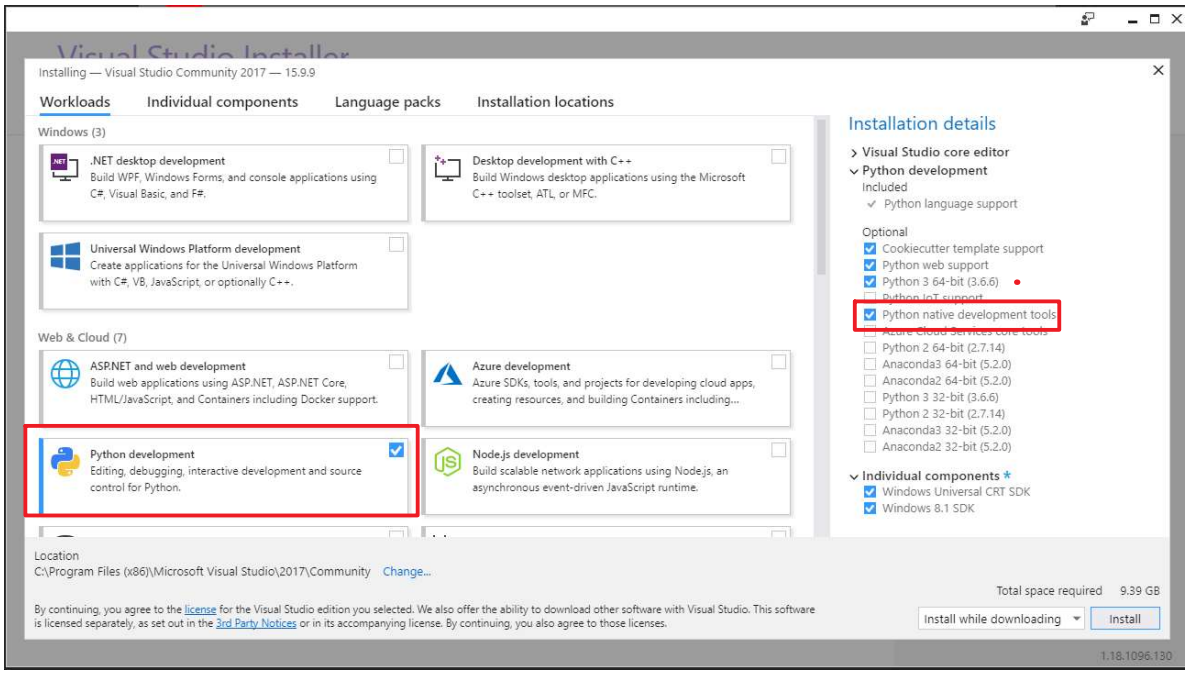
From <https://community.plm.automation.siemens.com/t5/NX-Programming-Customization-Forum/How-to-Debug-Python-in-NX/m-p/296251>

2. Download VS and Python Version

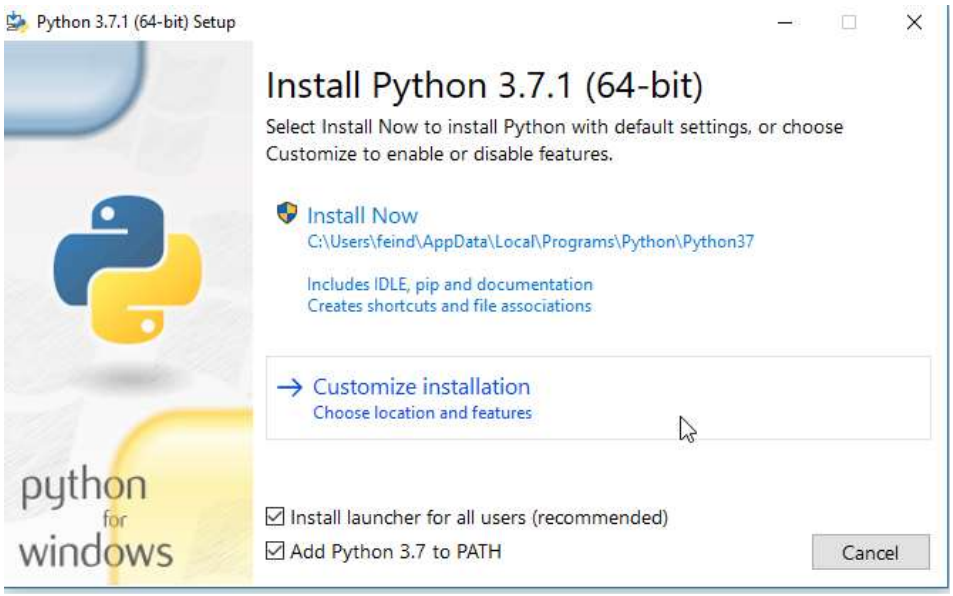
Using Visual Studio 2017 Community or any other VS Edition
https://visualstudio.microsoft.com/vs/community/?rr=https%3A%2F%2Fwww.google.com%2F

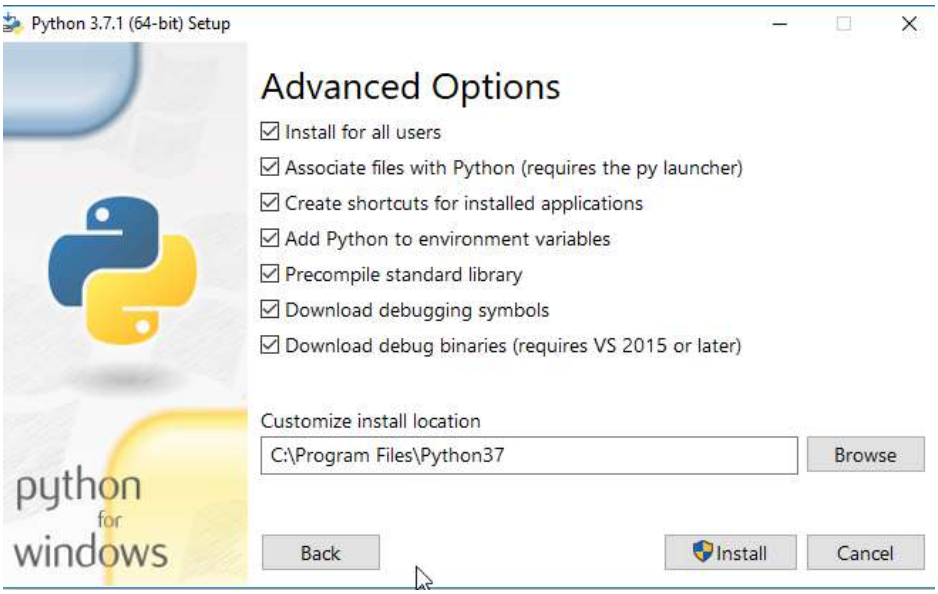
Download Python (installer and zip) from
https://www.python.org

3. Install Visual Studio



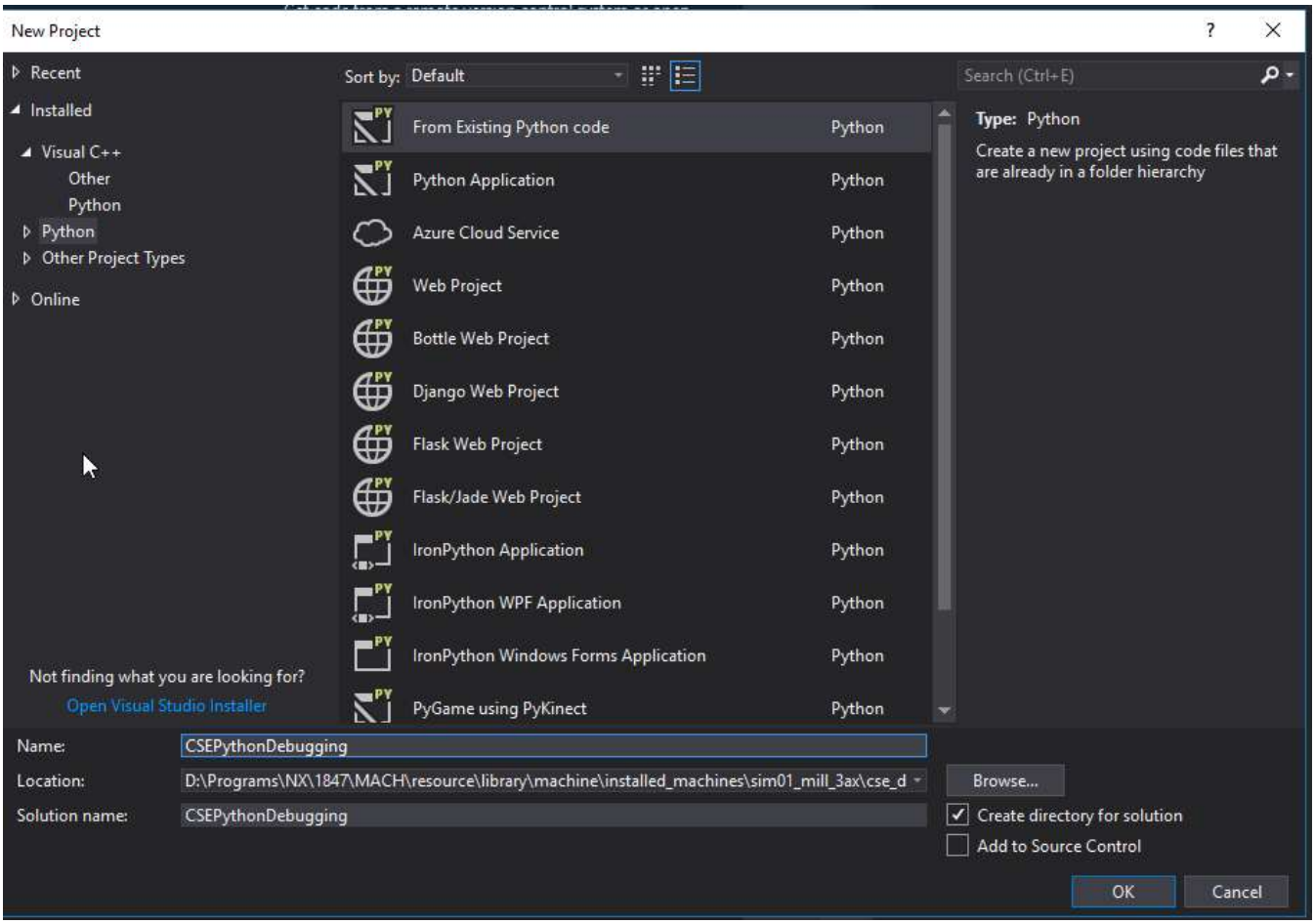
4. Install Python



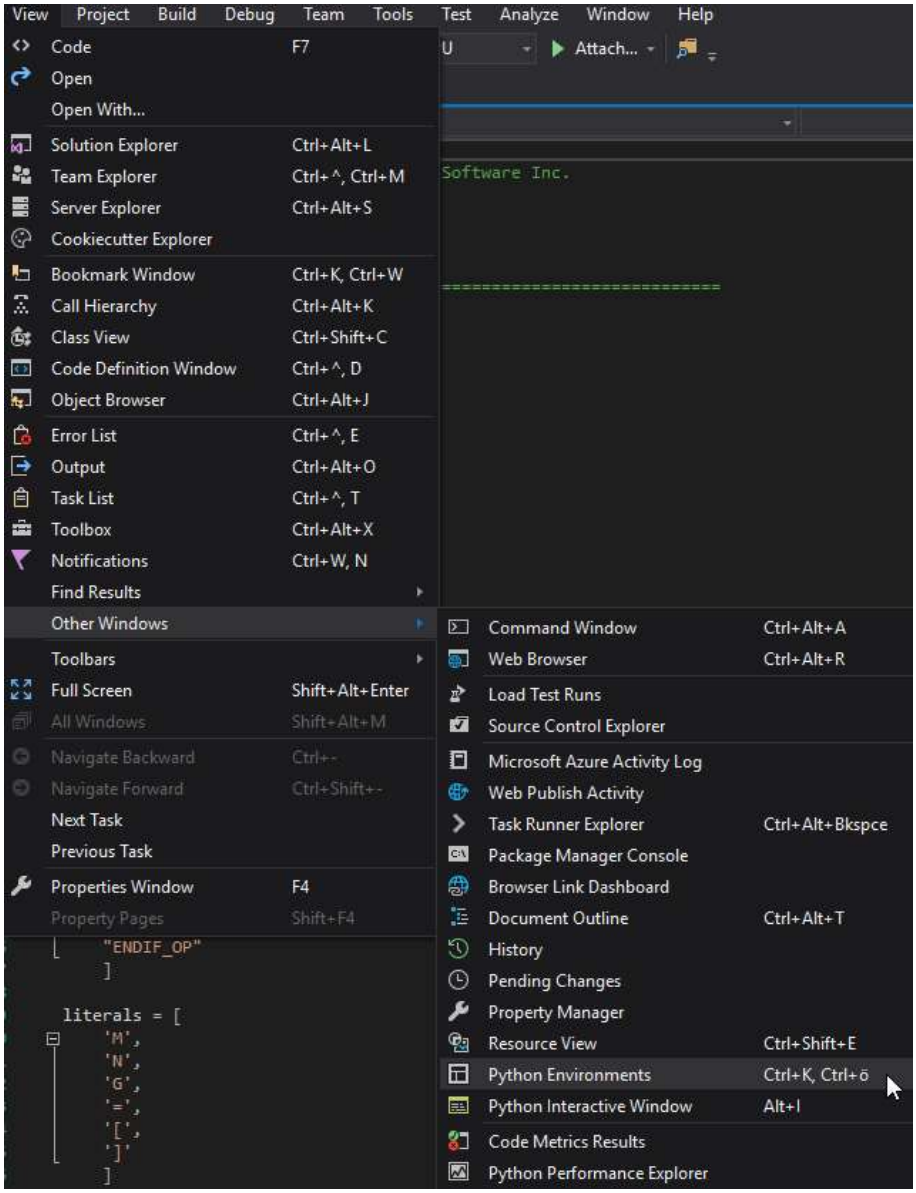


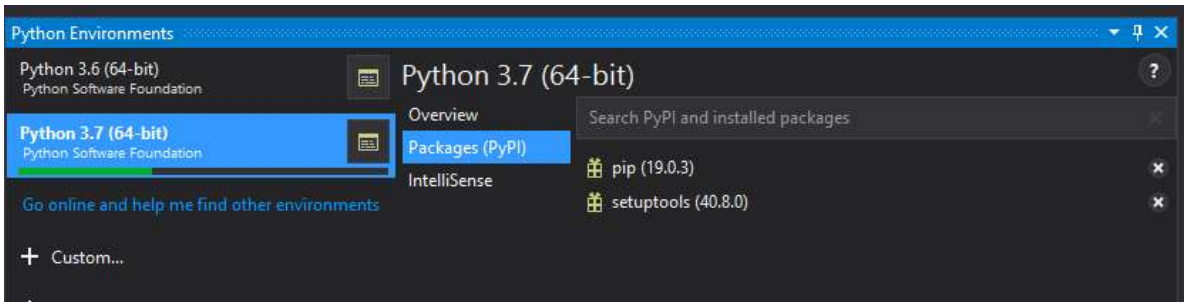
5. Create VS project

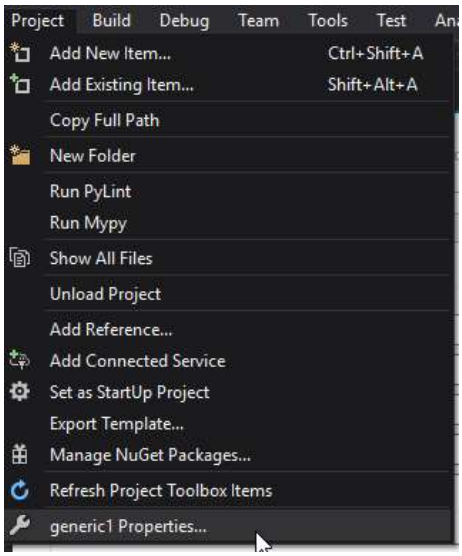
Select project folder where the python files are located



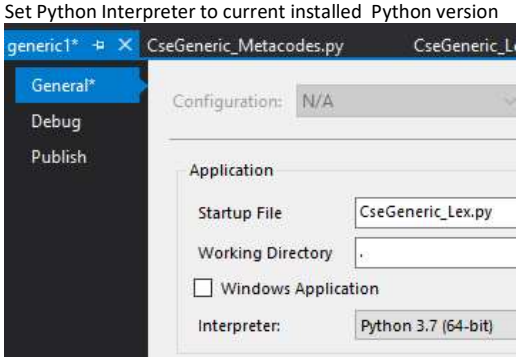
6. Setup Python Environment in VS


View Project Build Debug Team Tools Test Analyze Window Help
Code F7
Open
Open With...
Solution Explorer Ctrl+Alt+L
Team Explorer Ctrl+^, Ctrl+M
Server Explorer Ctrl+Alt+S
Cookiecutter Explorer
Bookmark Window Ctrl+K, Ctrl+W
Call Hierarchy Ctrl+Alt+K
Class View Ctrl+Shift+C
Code Definition Window Ctrl+^, D
Object Browser Ctrl+Alt+J
Error List Ctrl+^, E
Output Ctrl+Alt+O
Task List Ctrl+^, T
Toolbox Ctrl+Alt+X
Notifications Ctrl+W, N
Find Results
Other Windows
Toolbars
Full Screen Shift+Alt+Enter
All Windows Shift+Alt+M
Navigate Backward Ctrl+-
Navigate Forward Ctrl+Shift+-
Next Task
Previous Task
Properties Window F4
Property Pages Shift+F4
Attach...
Software Inc.
Command Window Ctrl+Alt+A
Web Browser Ctrl+Alt+R
Load Test Runs
Source Control Explorer
Microsoft Azure Activity Log
Web Publish Activity
Task Runner Explorer Ctrl+Alt+Bkspce
Package Manager Console
Browser Link Dashboard
Document Outline Ctrl+Alt+T
History
Pending Changes
Property Manager
Resource View Ctrl+Shift+E
Python Environments Ctrl+K, Ctrl+6
Python Interactive Window Alt+I
Code Metrics Results
Python Performance Explorer
"ENDIF_OP"
literals = [
'M',
'N',
'G',
'=',
'[',
']'

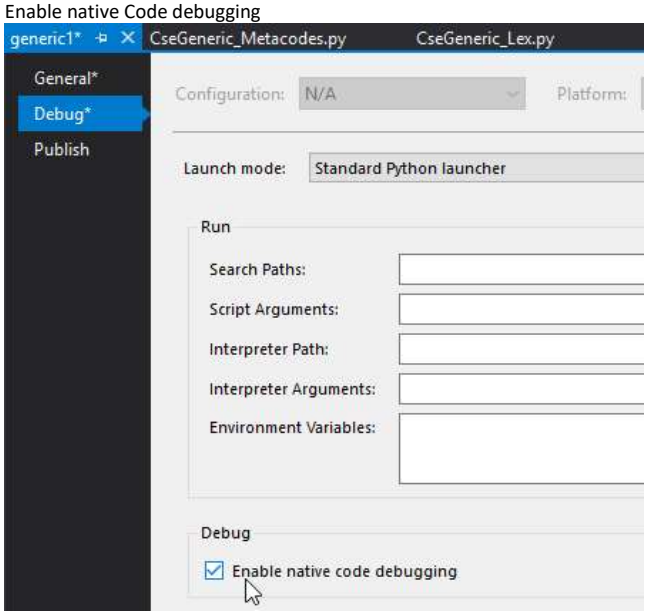

Python Environments
Python 3.6 (64-bit)
Python Software Foundation
Python 3.7 (64-bit)
Python Software Foundation
Python 3.7 (64-bit)
Overview
Packages (PyPI)
IntelliSense
Search PyPI and installed packages
pip (19.0.3)
setuptools (40.8.0)
Go online and help me find other environments
Custom...



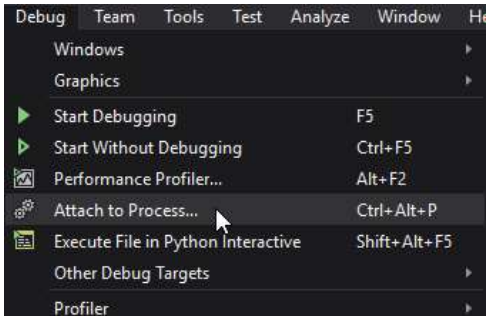
Set Python Interpreter to current installed Python version



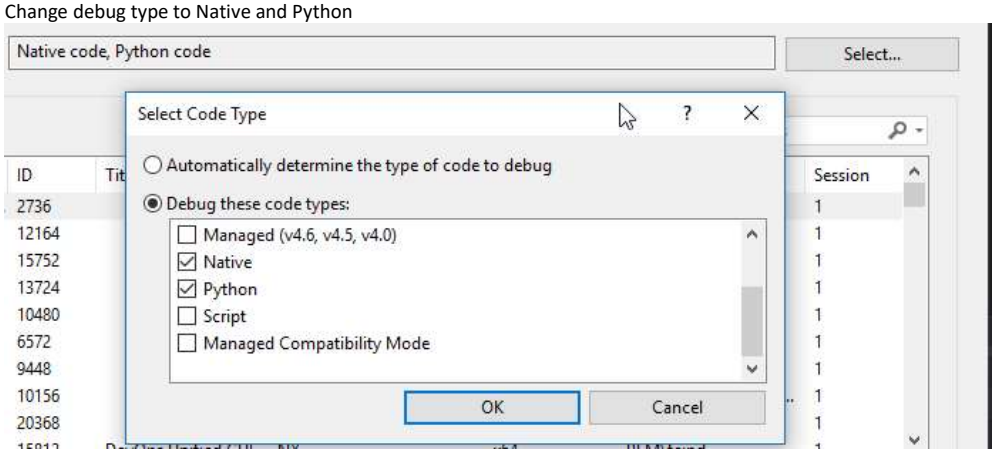
Enable native Code debugging



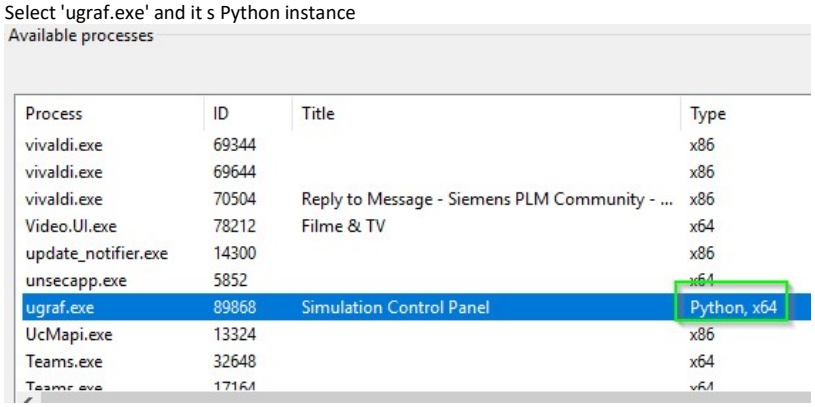
Start debugging by selecting 'Attach to process'



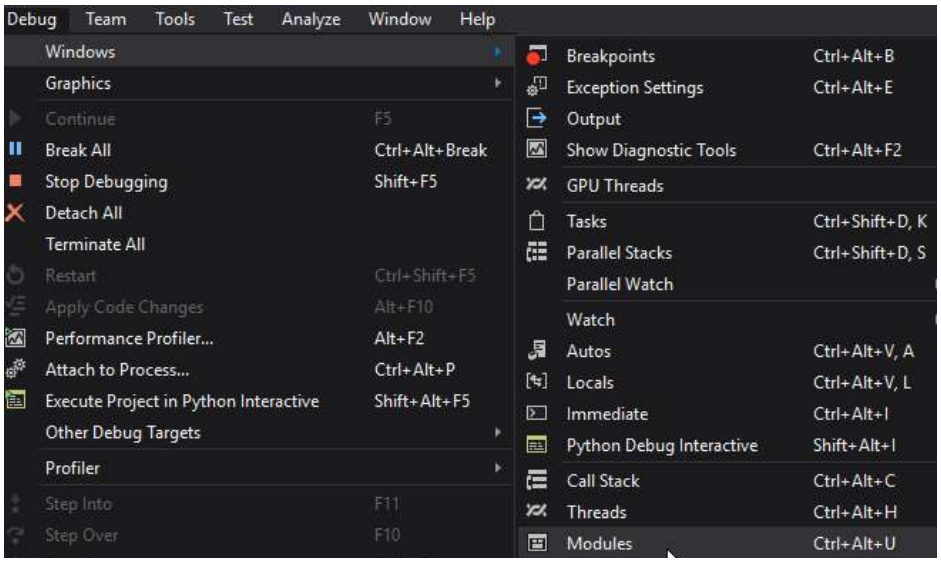
Change debug type to Native and Python

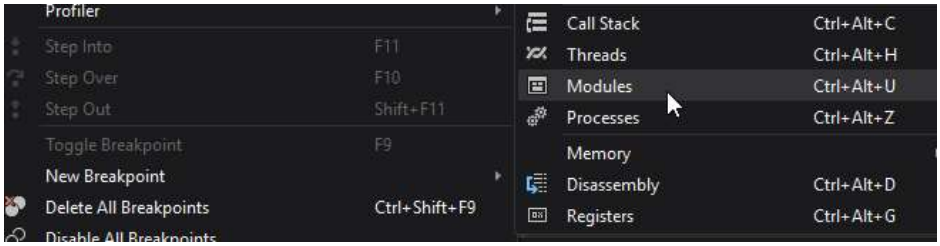


Select 'ugraf.exe' and it s Python instance

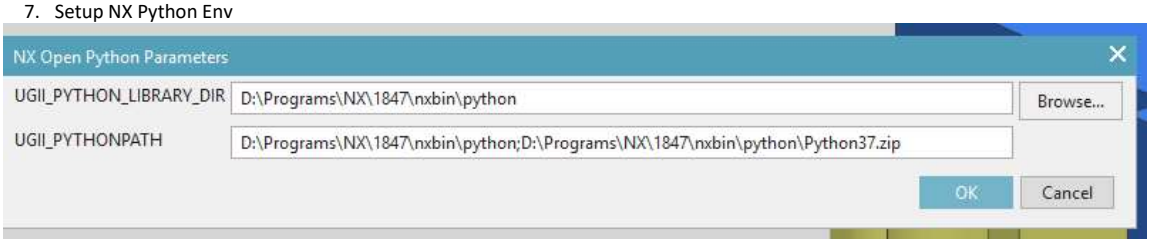


After attaching to the process VS will tell you that symbol files are missing --> close the dialog

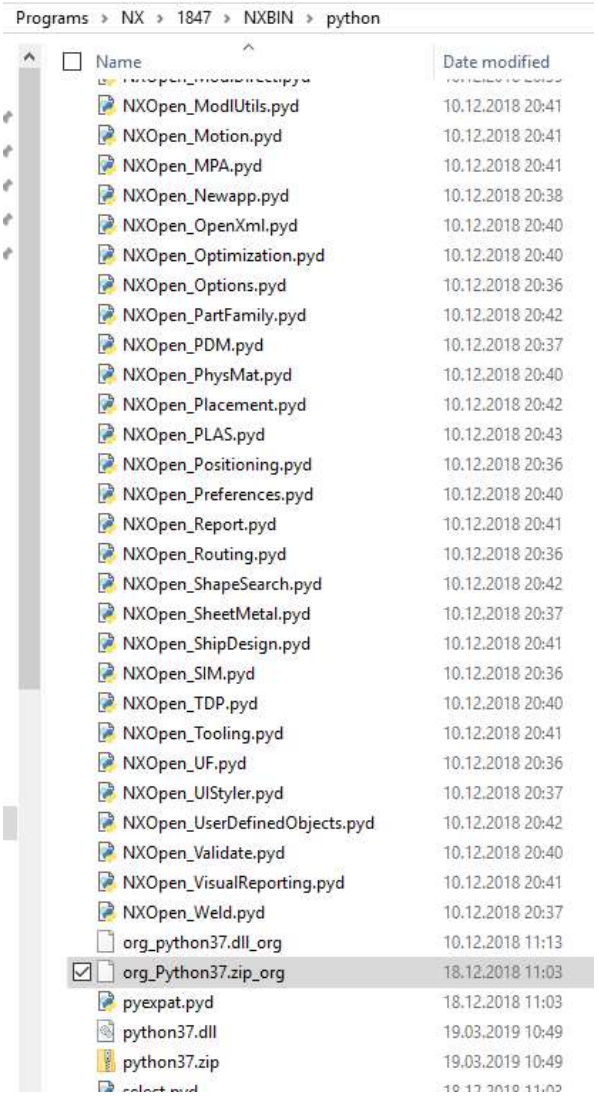




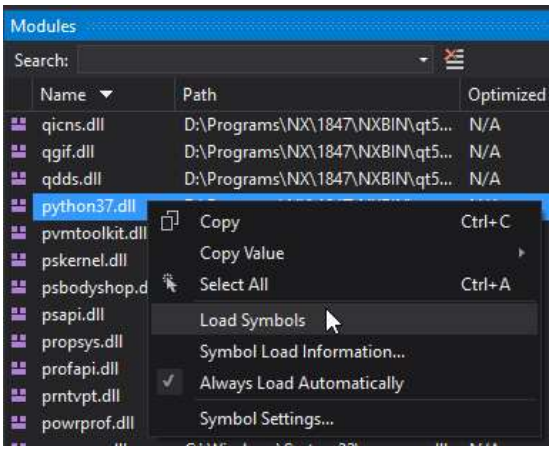
7. Setup NX Python Env

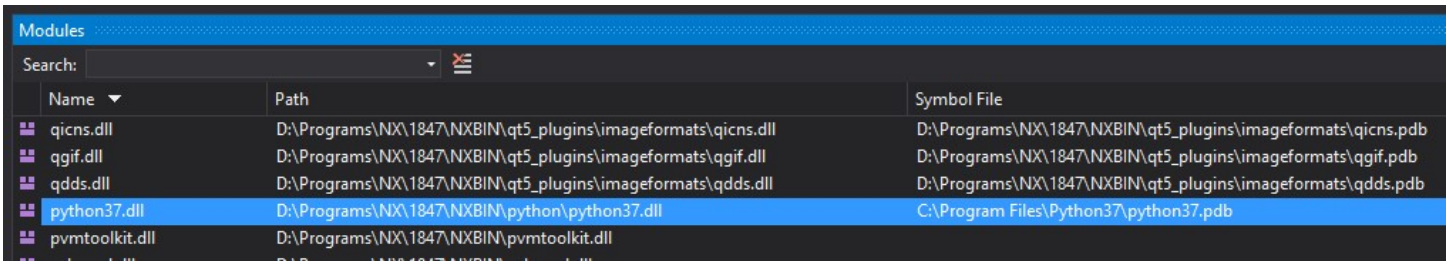


Copy python37.dll and python37.zip from Python Setup Installer to python nxbin folder (backup existing dll and zip)



Load Symbols for running python37.dll and select install path from python37





Close Modules

Set Breakpoints at any position within the python code and run NX Application which uses python code. Within VS the execution should stop now on the breakpoint.