Environment

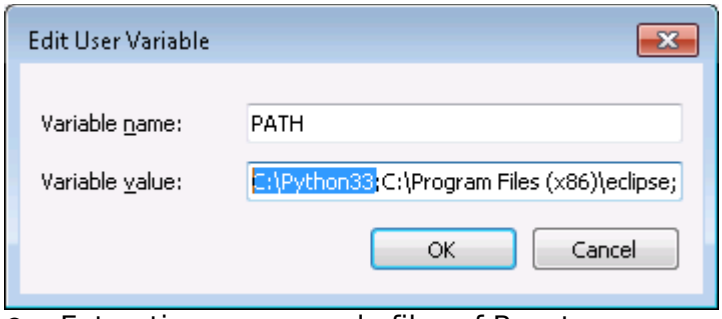
OS: Windows 7 Ultimate x64
Compiler: Visual Studio 2010
Boost: 1.57.0 (installation path is “D:\libs\boost”)
CMake: 3.2.1
Python3: 3.3.5
NumPy: 1.9.1
SciPy: 0.14.0
PyQt4: 4.10.3
Pyparsing: 2.0.1
python-dateutil: 2.2
six: 1.5.2
Git: 1.9.5 (optional)

Downloading

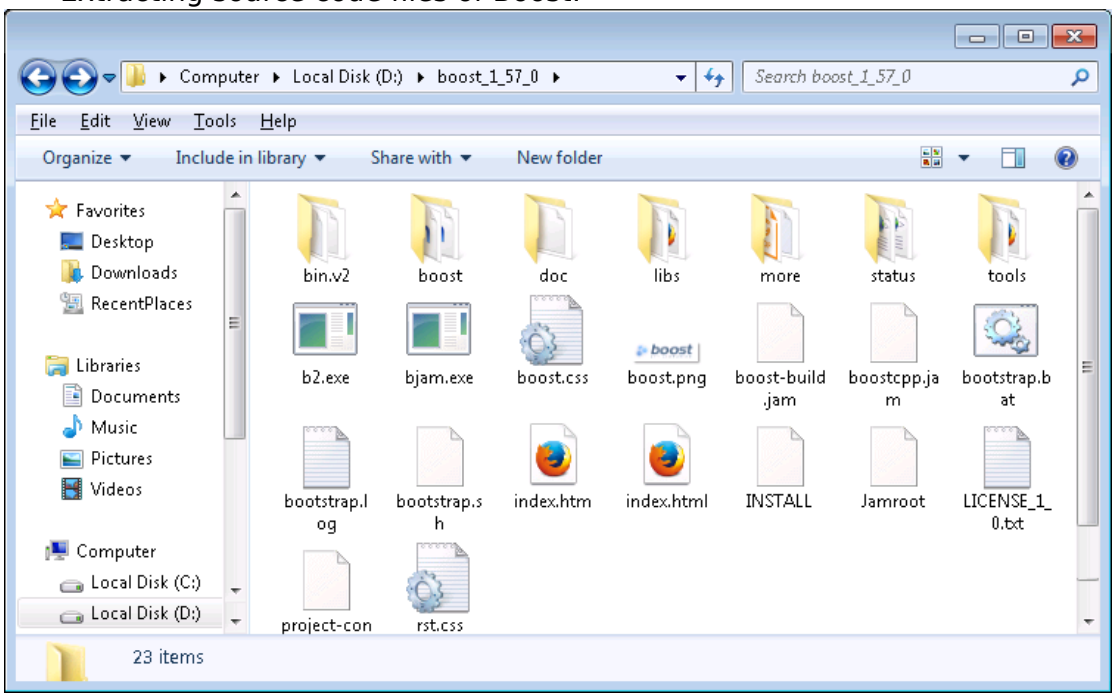
Boost: http://sourceforge.net/projects/boost/files/boost/1.57.0/
CMake: http://www.cmake.org/files/v3.1/cmake-3.1.3-win32-x86.exe
Python3: http://www.python.org/ftp/python/3.3.5/python-3.3.5.msi
NumPy: http://sourceforge.net/projects/numpy/files/NumPy/1.9.1/numpy-1.9.1-win32-superpack-python3.3.exe/download
SciPy: http://sourceforge.net/projects/scipy/files/scipy/0.14.0/scipy-0.14.0-win32-superpack-python3.3.exe/download
PyQt4: http://sourceforge.net/projects/pyqt/files/PyQt4/PyQt-4.10.3/PyQt4-4.10.3-gpl-Py3.3-Qt4.8.5-x32.exe/download
Pyparsing: http://sourceforge.net/projects/pyparsing/files/pyparsing/pyparsing-2.0.1/pyparsing-2.0.1.win32-py3.3.exe/download
setuptools: https://pypi.python.org/pypi/setuptools#downloads
python-dateutil: https://pypi.python.org/pypi/python-dateutil/2.2
six: https://pypi.python.org/pypi/six/1.5.2
Matplotlib: http://sourceforge.net/projects/matplotlib/files/matplotlib/matplotlib-1.3.1/matplotlib-1.3.1.win32-py3.3.exe/download
Git: https://github.com/msysgit/msysgit/releases/download/Git-1.9.5-preview20141217/Git-1.9.5-preview20141217.exe

Compiling Boost

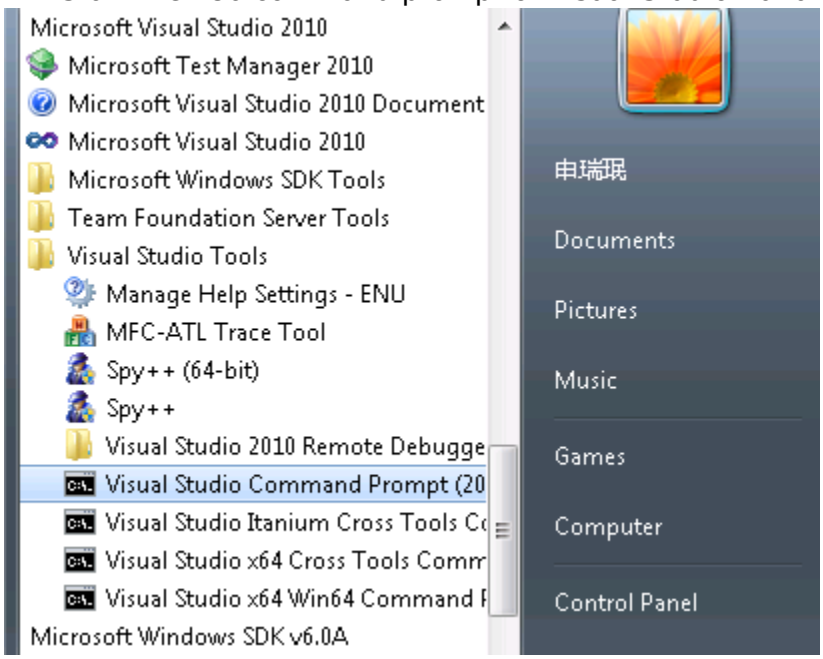
- Installing Python 3, and make sure its path is included in the PATH environment variable:



- Extracting source code files of Boost:



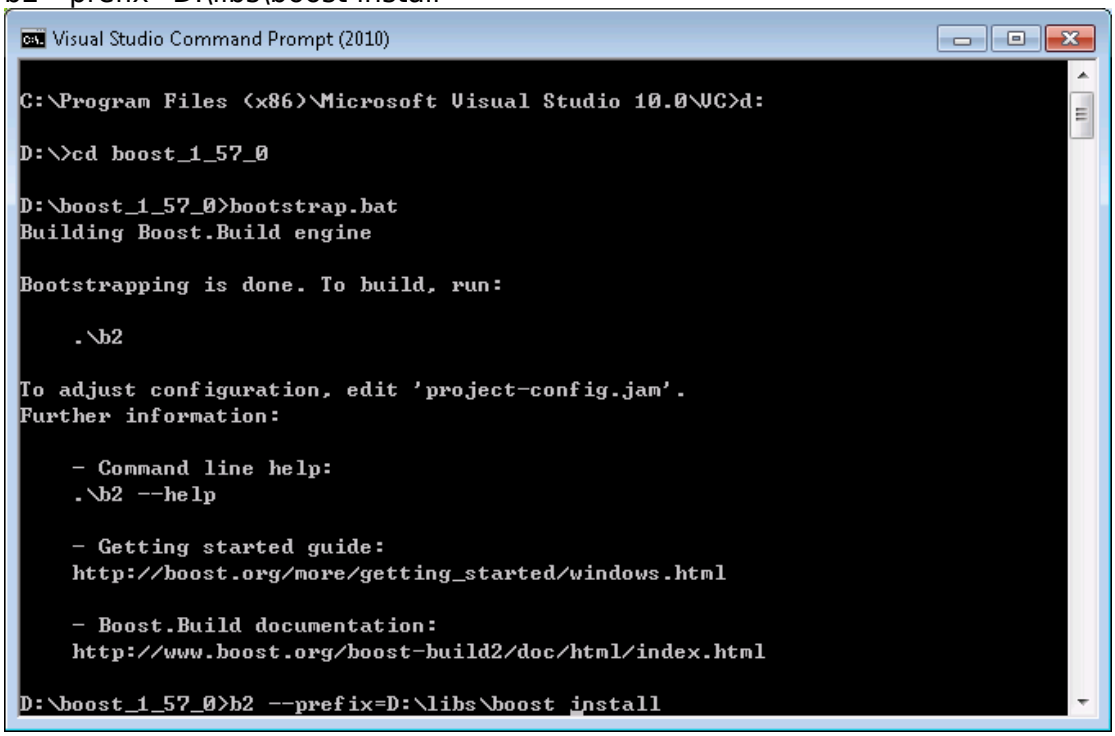
- Start the x86 command prompt of Visual Studio 2010:



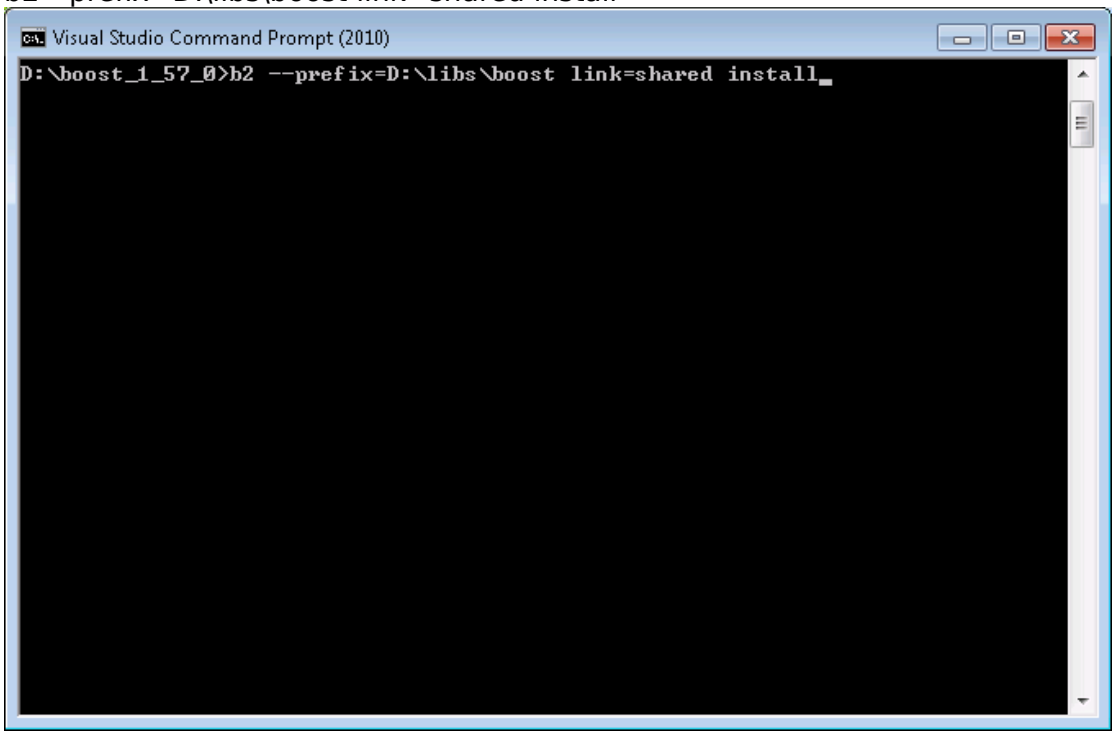
- Compiling Boost (both static and shared link):

```
d:
cd D:\boost_1_57_0
bootstrap.bat
```

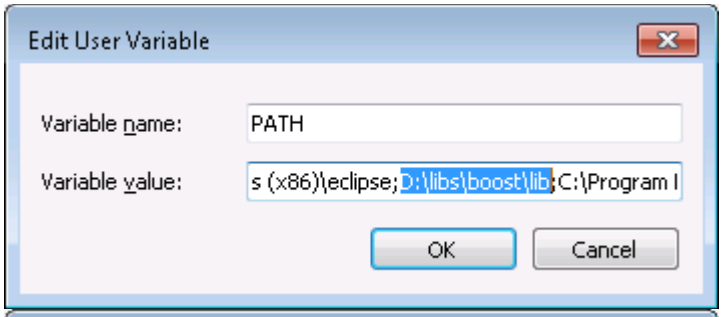
b2 --prefix=D:\libs\boost install

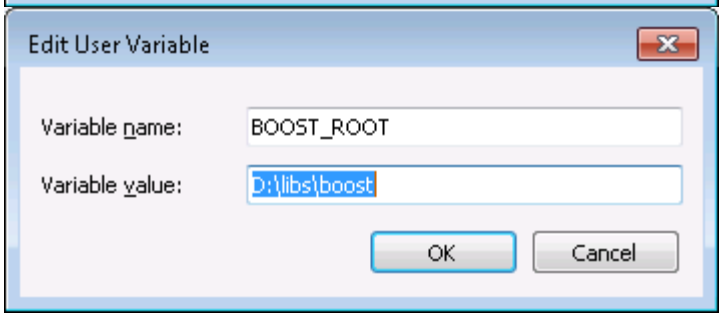


b2 --prefix=D:\libs\boost link=shared install

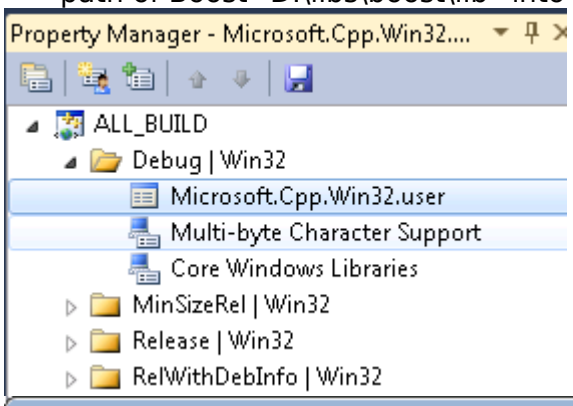


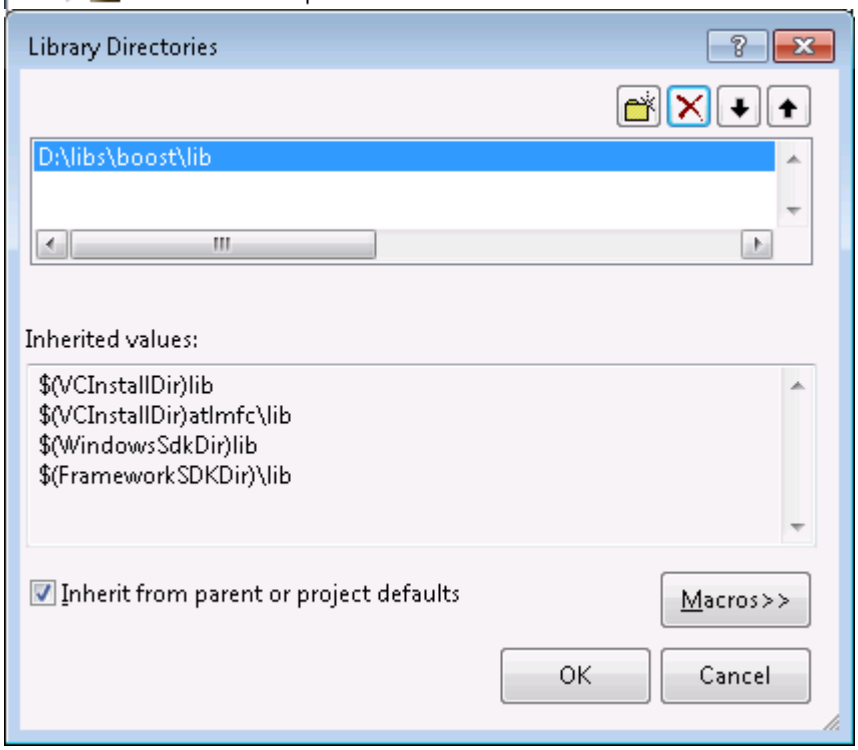
- Adding the installation path of Boost “D:\libs\boost” into both the PATH and BOOST_ROOT environment variables:





- Open the property manager of Visual Studio 2010, and adding the library path of Boost “D:\libs\boost\lib” into library directories:

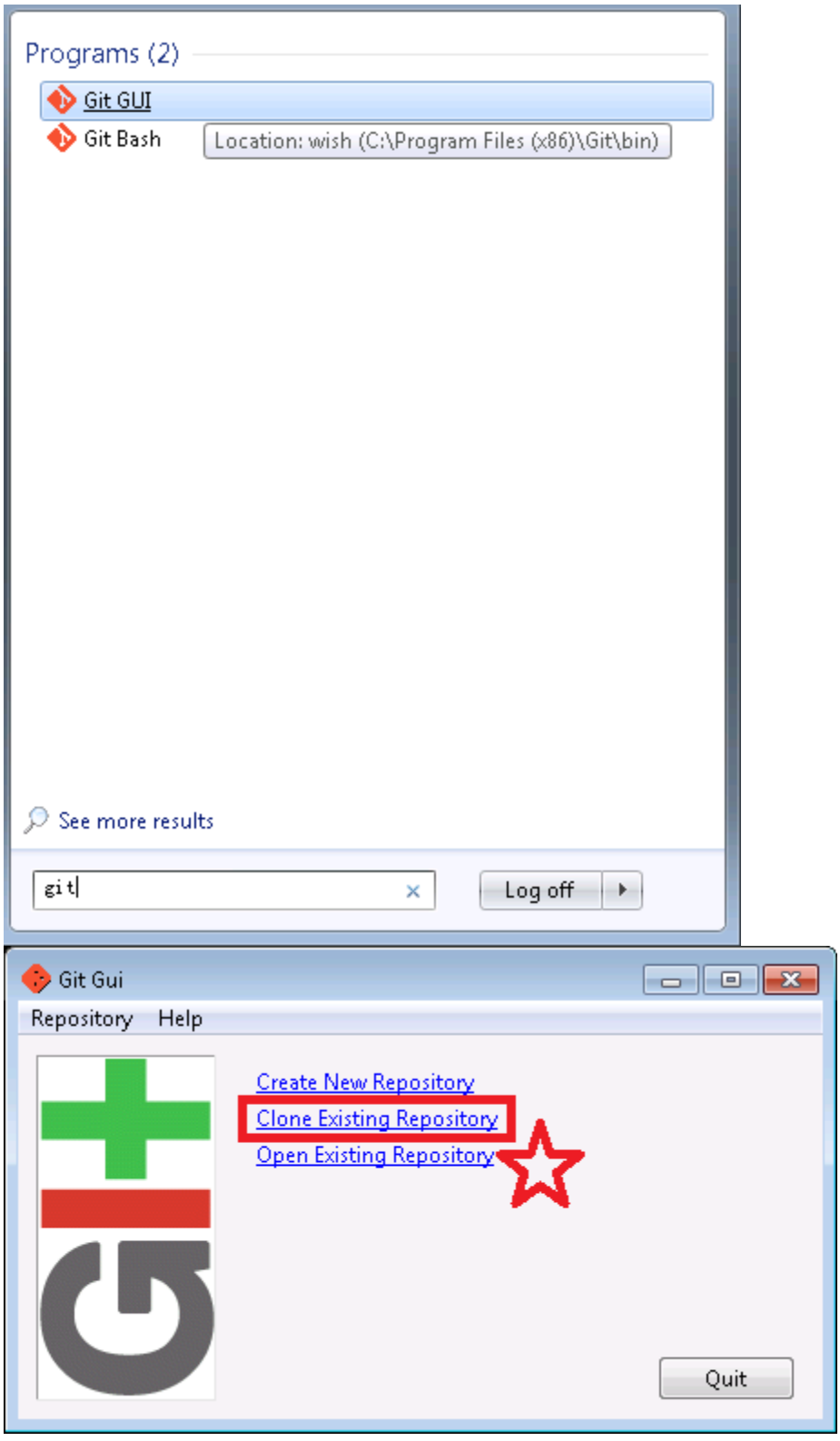




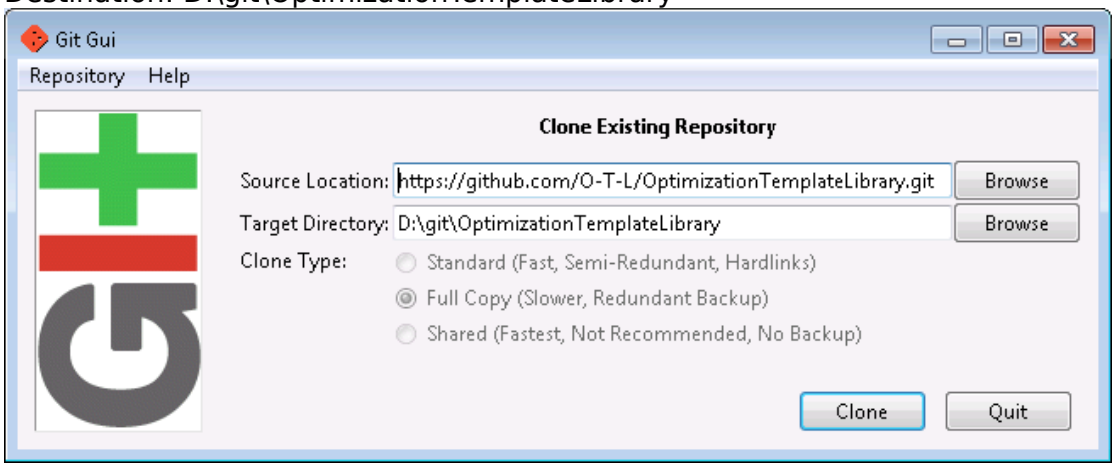
Configuring OTL

- Clone the repository (recommended):

Start Git GUI

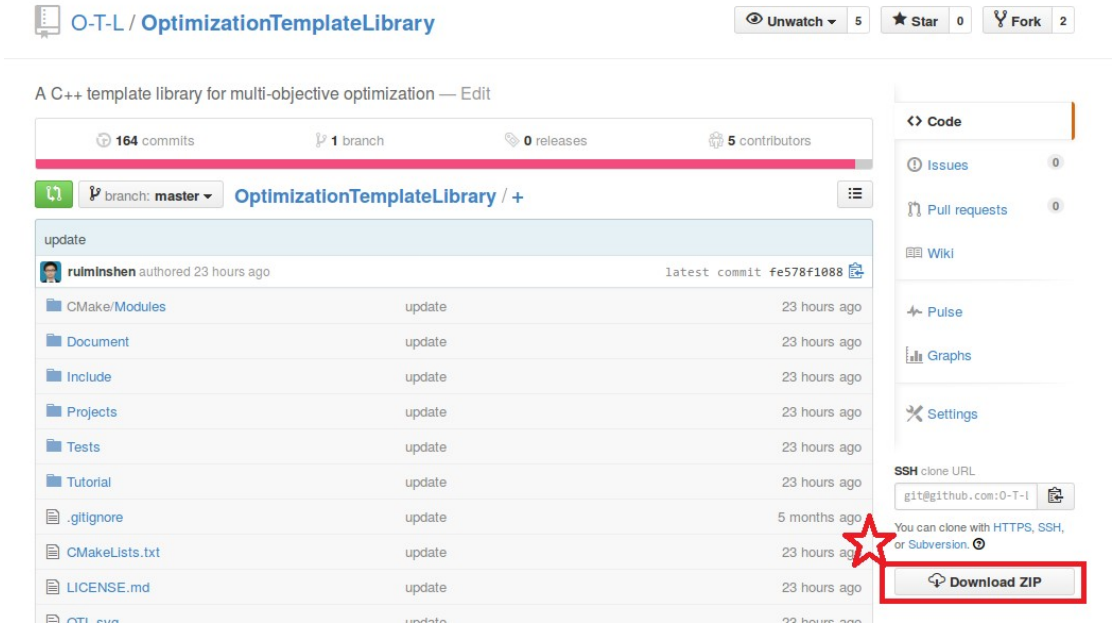


Clone URL: https://github.com/O-T-L/OptimizationTemplateLibrary.git
Destination: D:\git\OptimizationTemplateLibrary



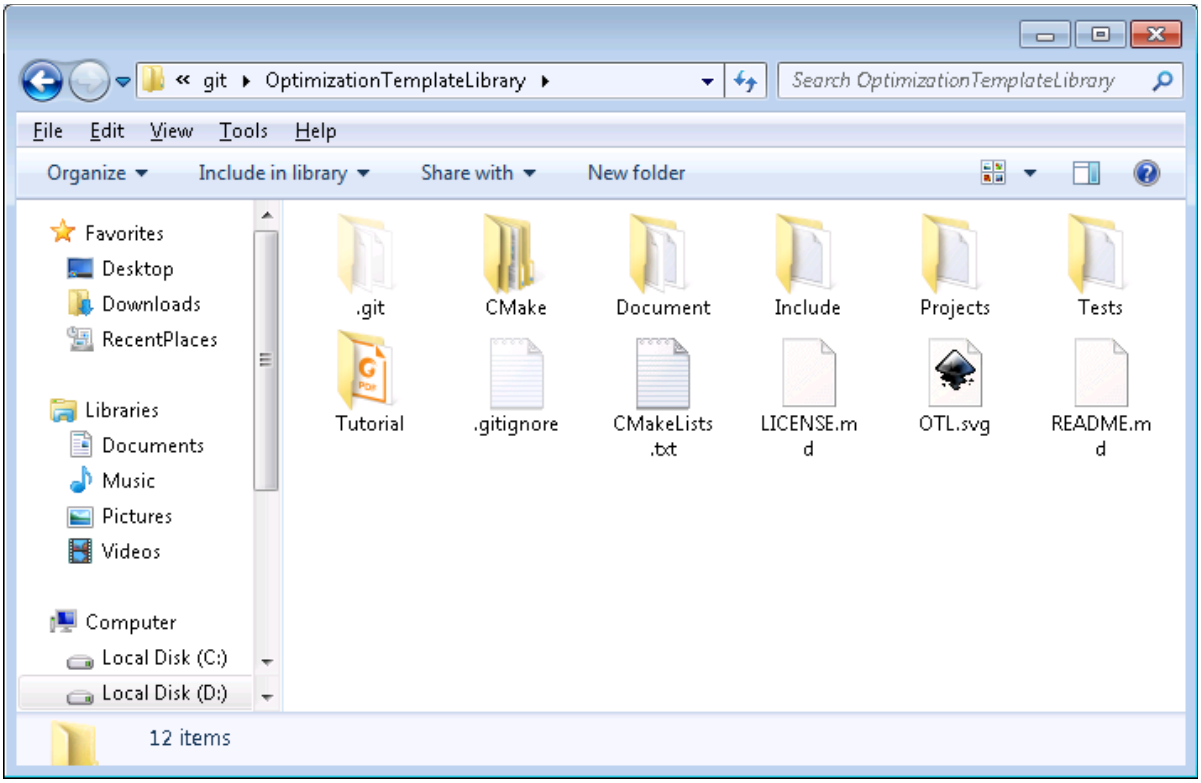
- Or downloading the source codes (if Git is not used):

Go to OTL's page: https://github.com/O-T-L/OptimizationTemplateLibrary
Click the "Download ZIP" button.

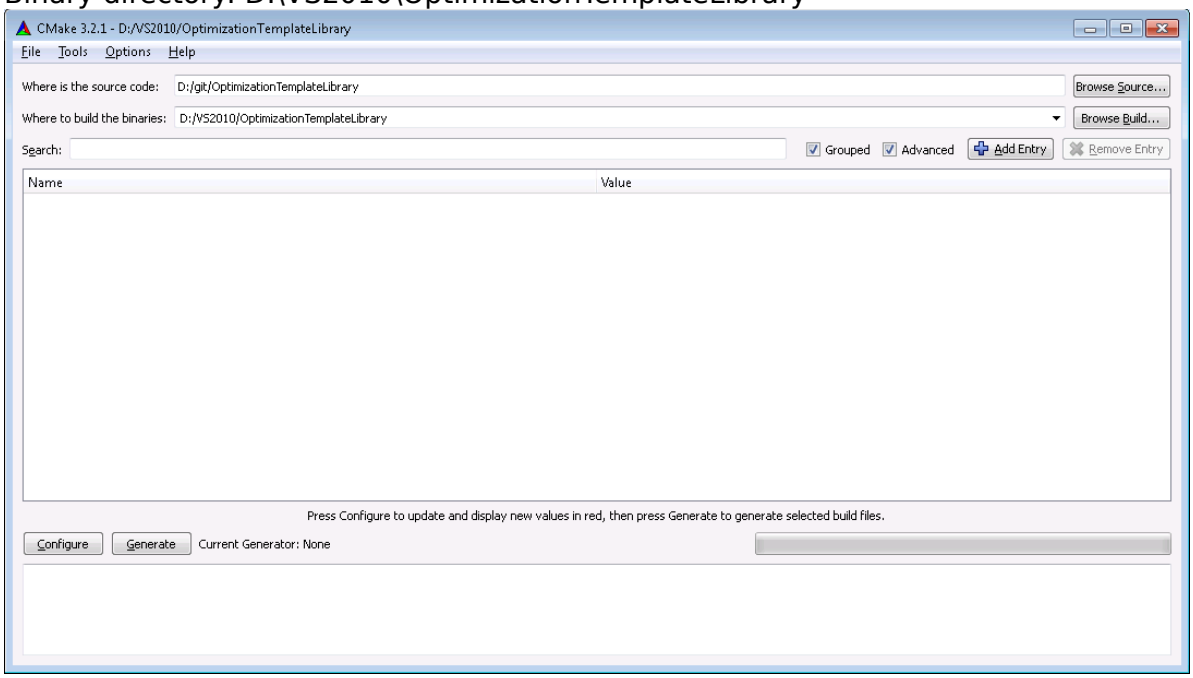


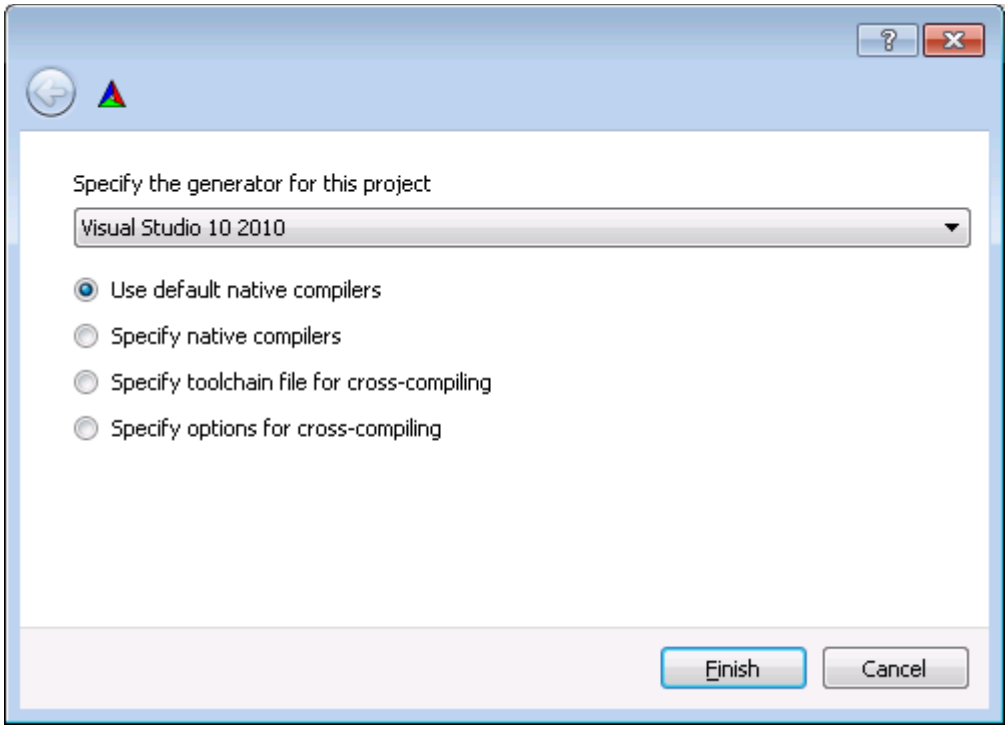
- Generating project files of Visual Studio 2010

Source code directory: D:\git\OptimizationTemplateLibrary



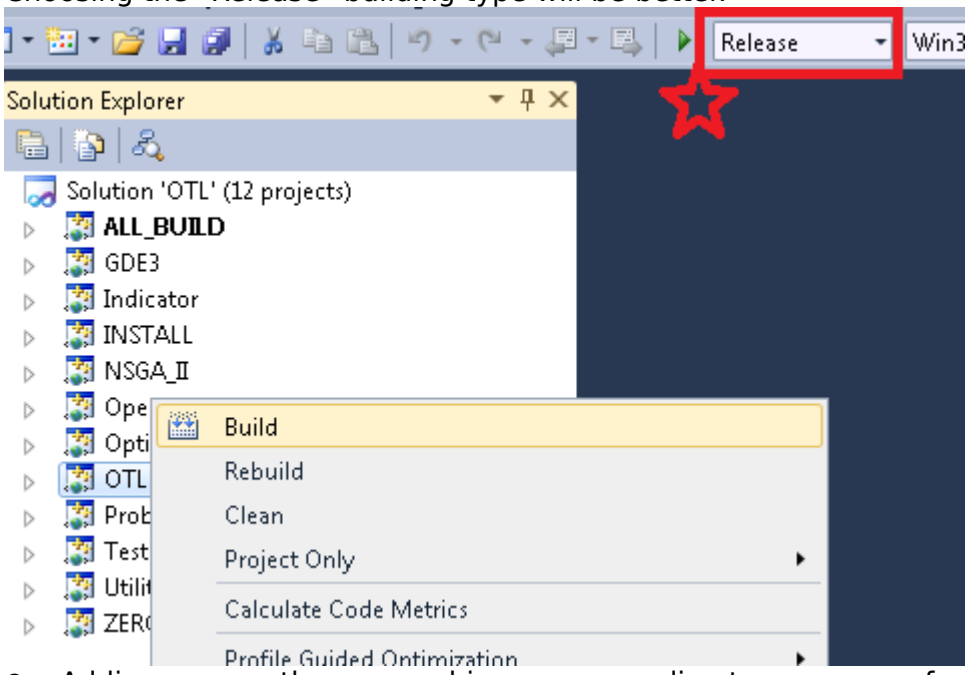
Binary directory: D:\VS2010\OptimizationTemplateLibrary



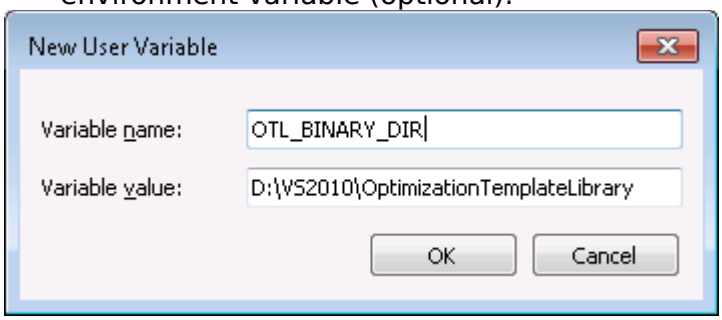


- Building the OTL project:

Choosing the “Release” building type will be better.



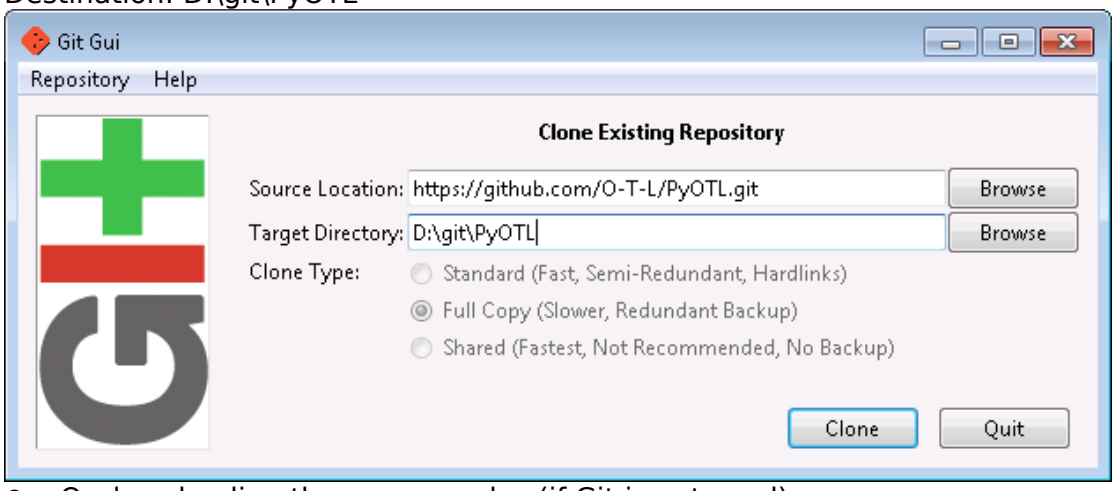
- Adding the binary directory of OTL “D:\VS2010\OptimizationTemplateLibrary” into the OTL_BINARY_DIR environment variable (optional):



Configuring PyOTL

- Clone the repository (recommended):

Clone URL: https://github.com/O-T-L/PyOTL.git
Destination: D:\git\PyOTL

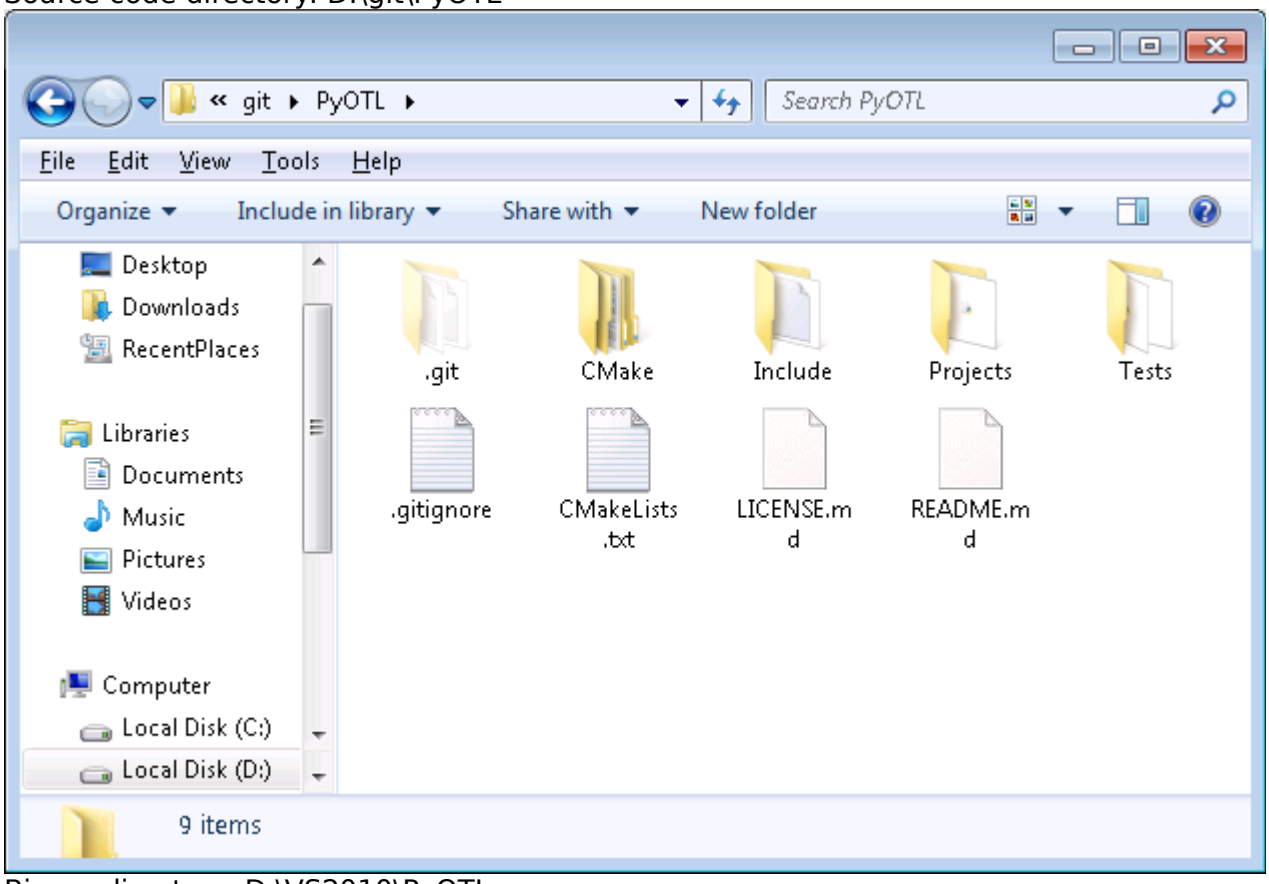


- Or downloading the source codes (if Git is not used):

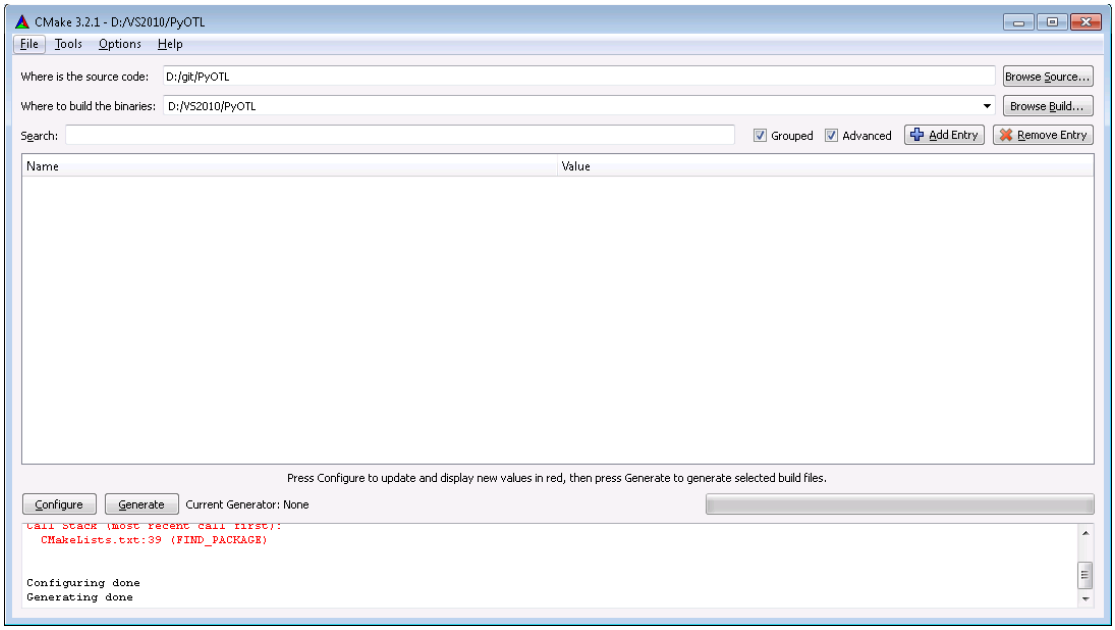
Go to PyOTL's page: https://github.com/O-T-L/PyOTL
Click the "Download ZIP" button.

- Generating project files of Visual Studio 2010

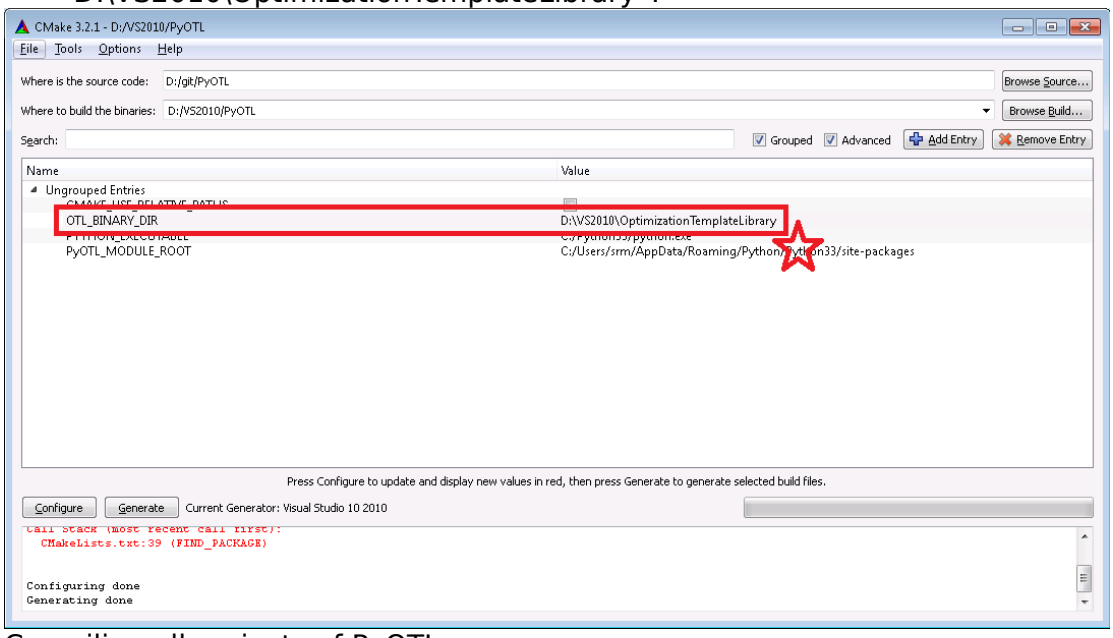
Source code directory: D:\git\PyOTL



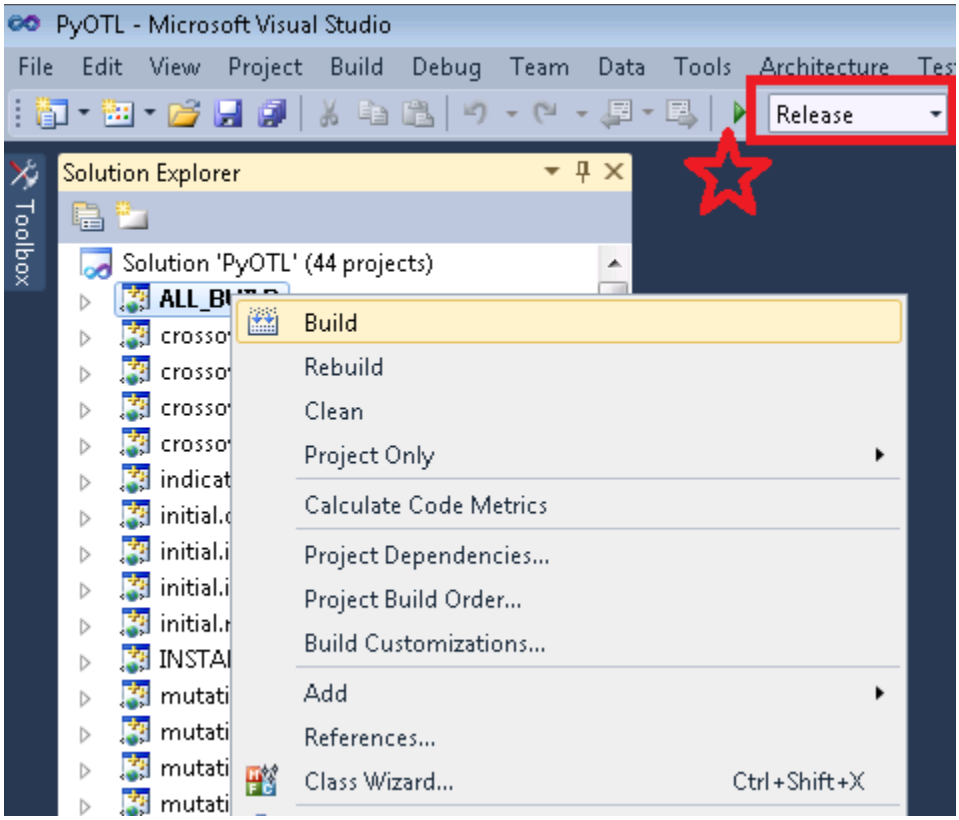
Binary directory: D:\VS2010\PyOTL



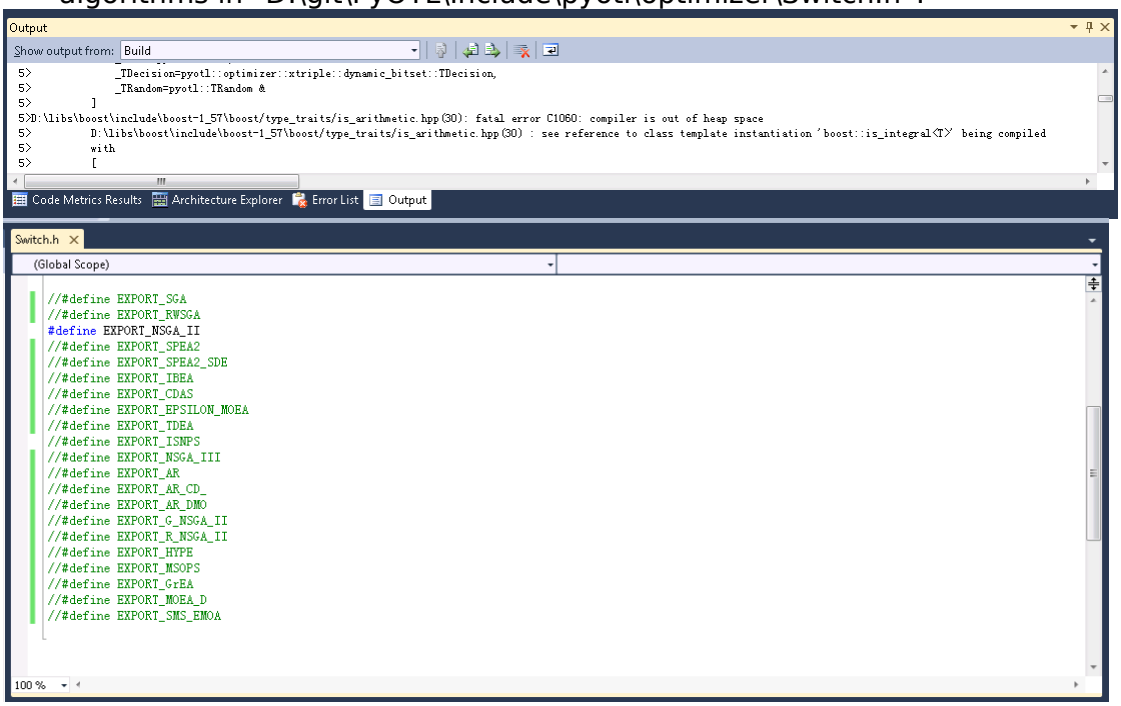
- If the OTL_BINARY_DIR environment variable is not set, then set the OTL_BINARY_DIR CMake variable into "D:\VS2010\OptimizationTemplateLibrary":



Compiling all projects of PyOTL:
Choosing the "Release" building type will be better.



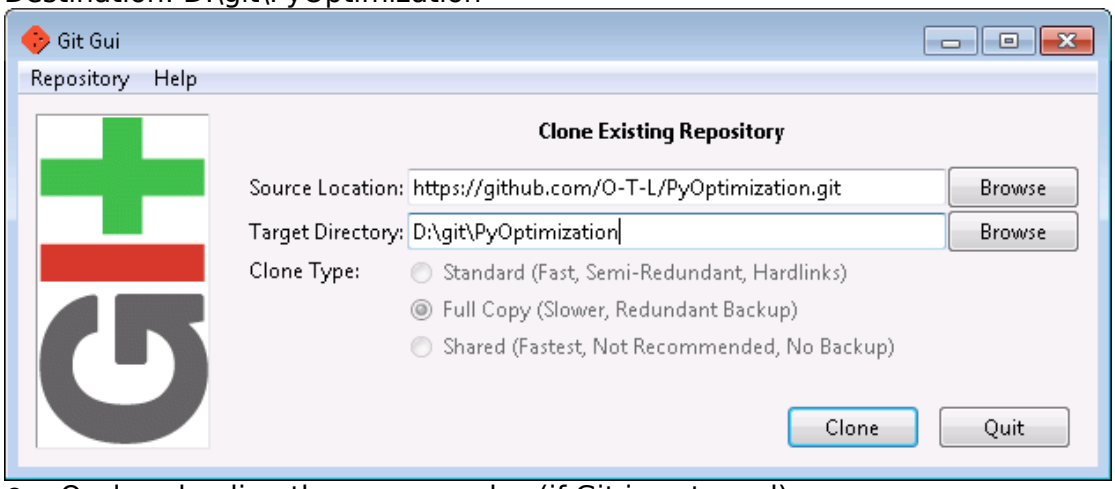
- If your memory is not enough, you can disable some optimization algorithms in “D:\git\PyOTL\Include\pyotl\optimizer\Switch.h”:



Configuring PyOptimization

- Clone the repository (recommended):

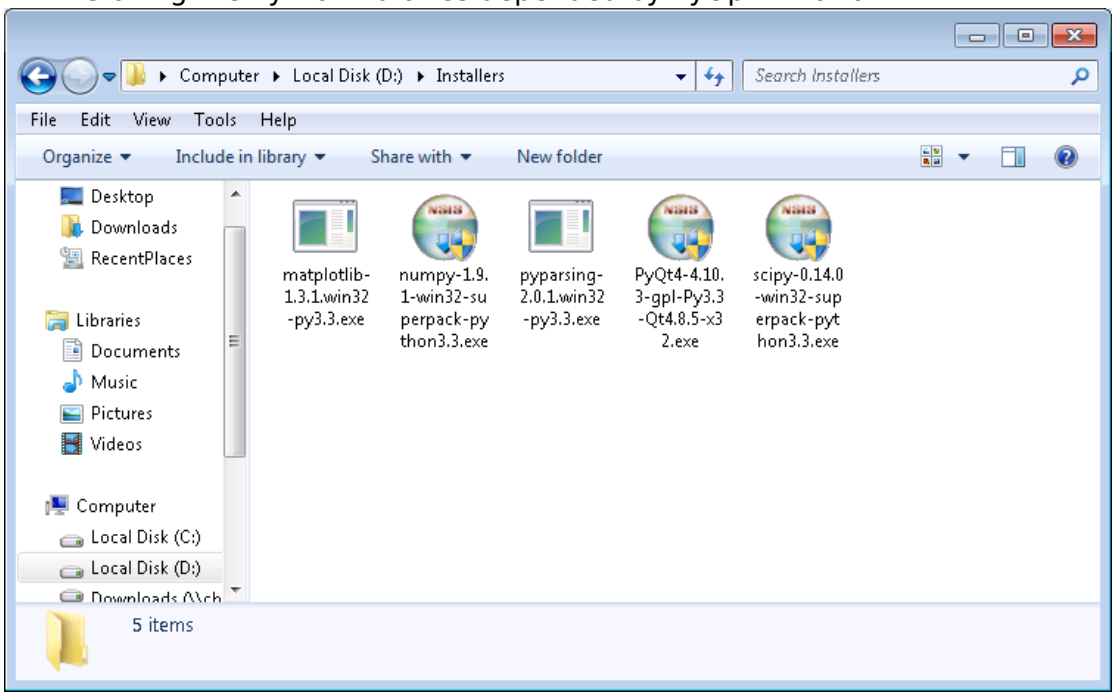
Clone URL: https://github.com/O-T-L/PyOptimization.git
Destination: D:\git\PyOptimization



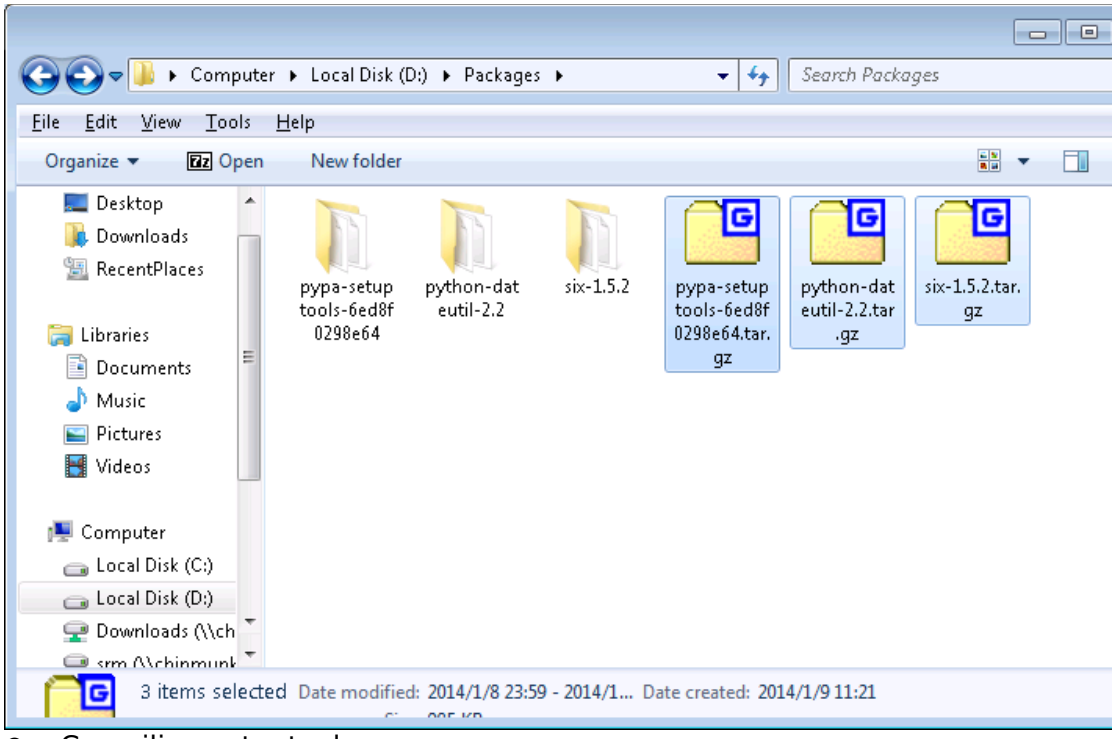
- Or downloading the source codes (if Git is not used):

Go to PyOptimization's page: https://github.com/O-T-L/PyOptimization
Click the "Download ZIP" button.

- Installing the Python libraries depended by PyOptimization:

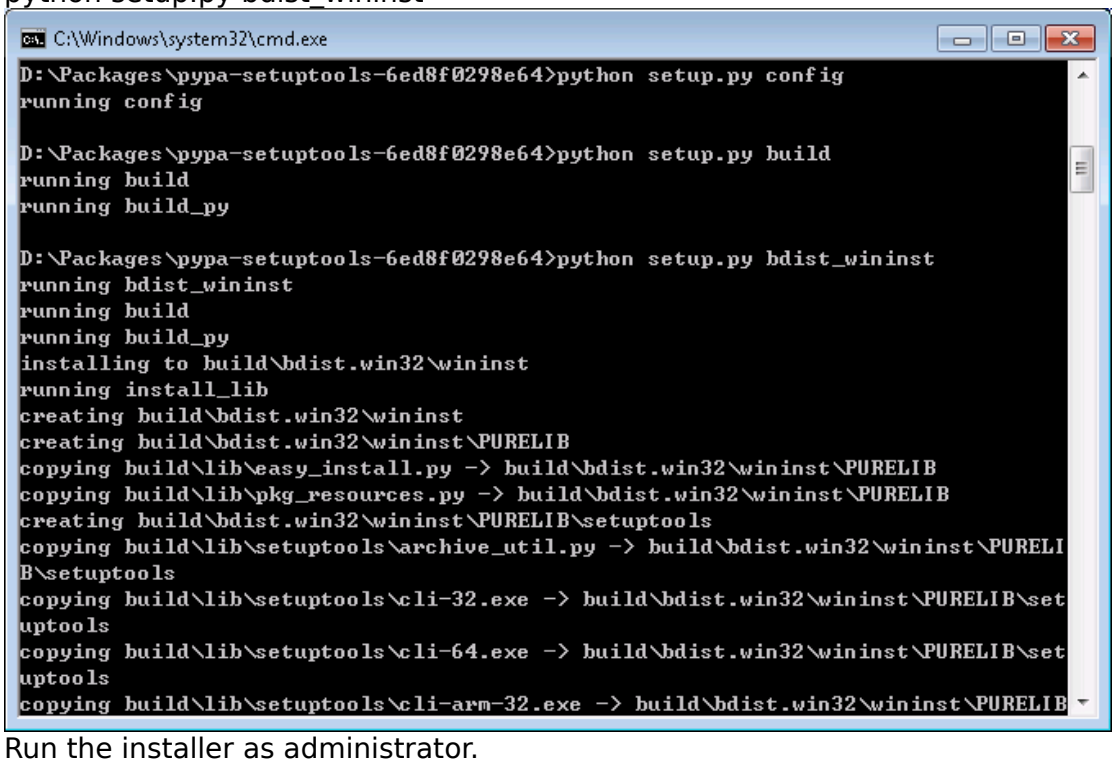


- Manually compiling the Python libraries depended by PyOptimization:

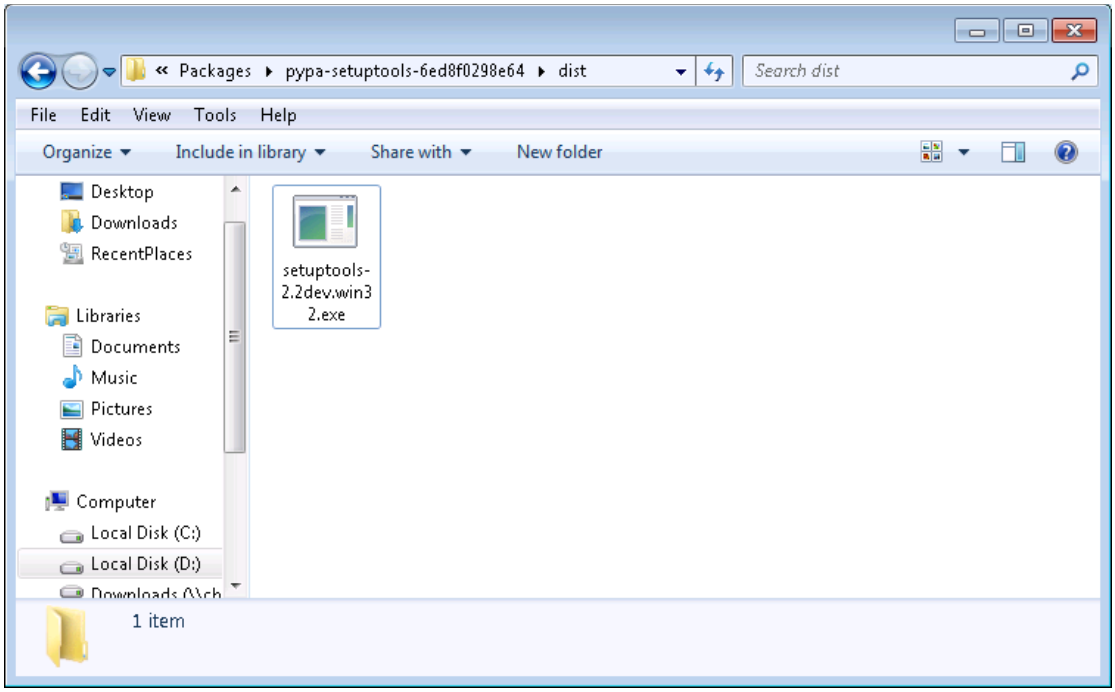


- Compiling setuptools:

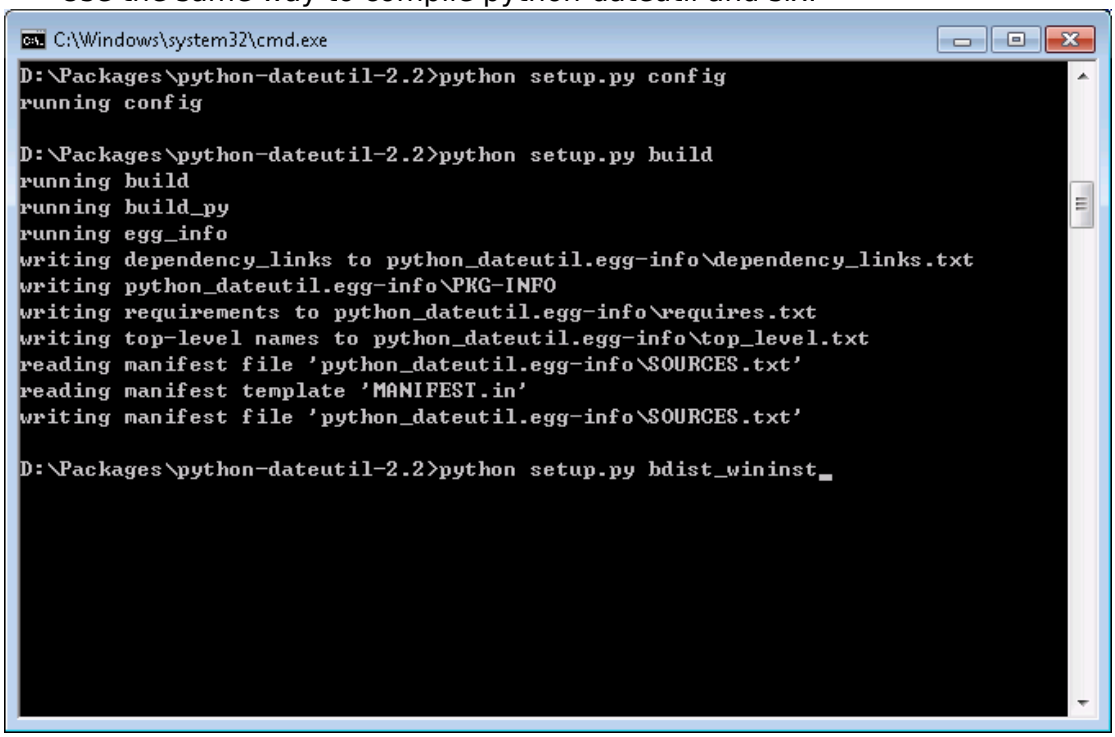
python setup.py config
python setup.py build
python setup.py bdist_wininst

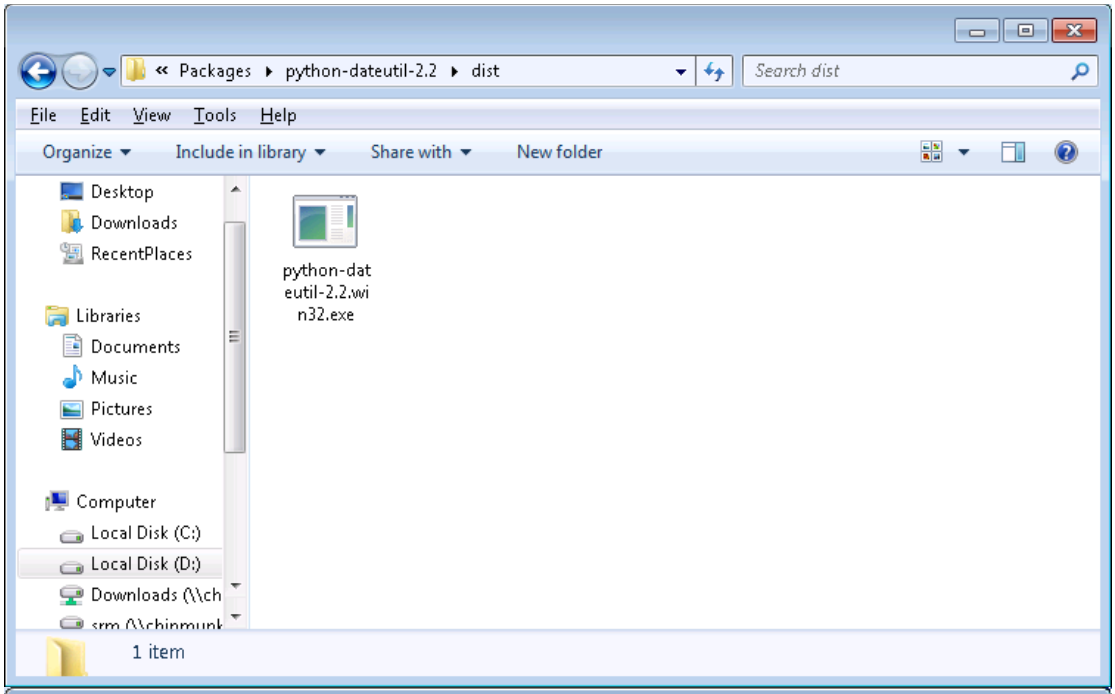


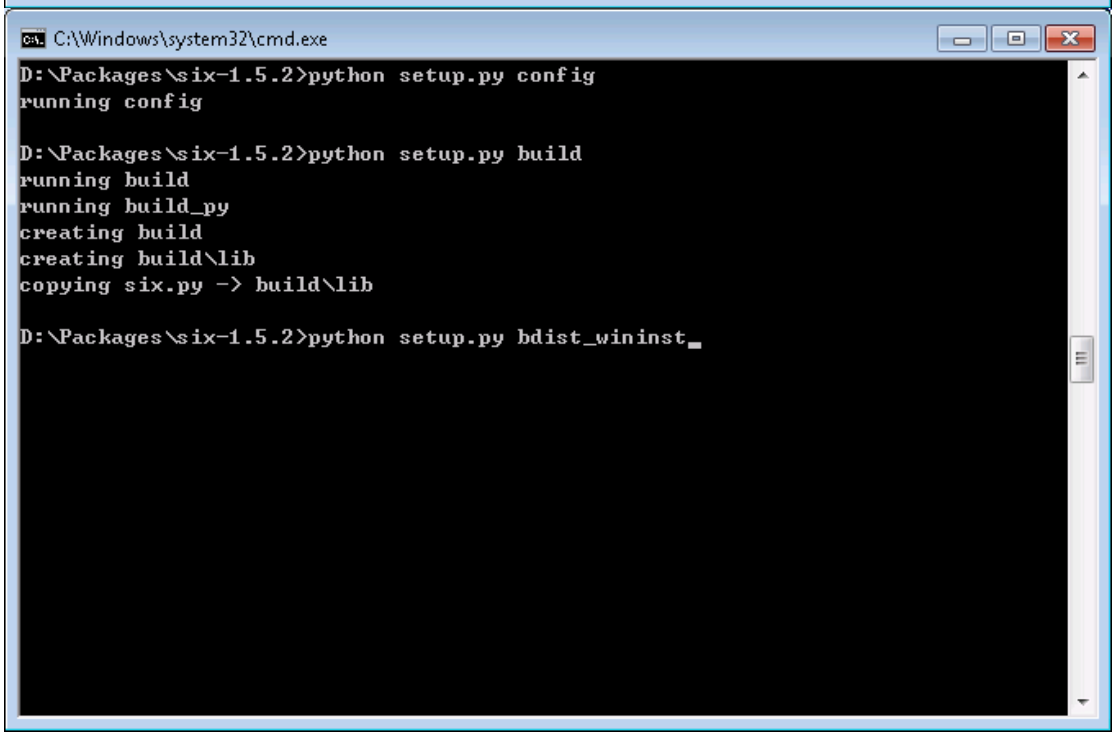
Run the installer as administrator.

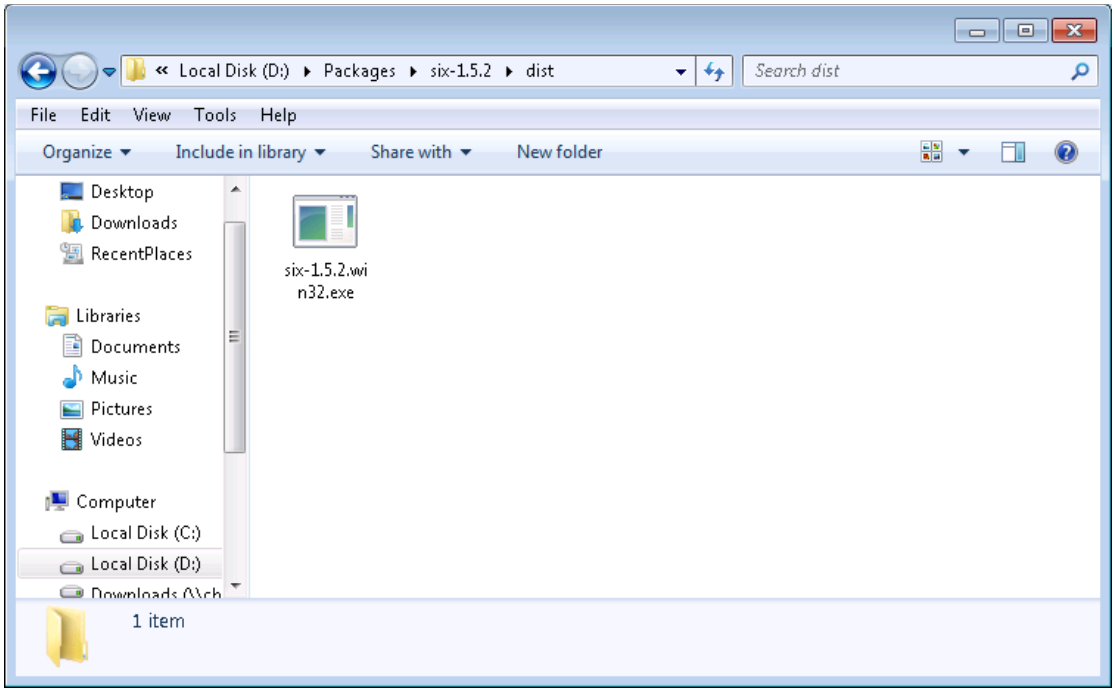


- Use the same way to compile python-dateutil and six:

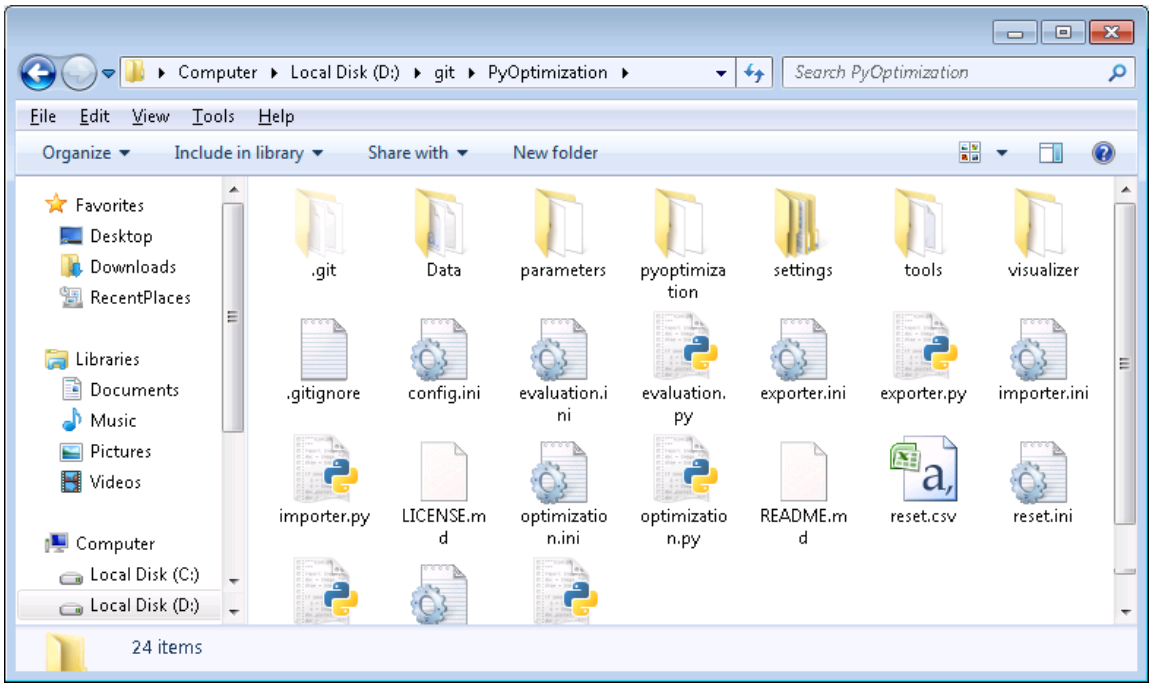



« Packages ▸ python-dateutil-2.2 ▸ dist
Search dist
File Edit View Tools Help
Organize
Include in library
Share with
New folder
Desktop
Downloads
RecentPlaces
Libraries
Documents
Music
Pictures
Videos
Computer
Local Disk (C:)
Local Disk (D:)
Downloads (\\ch
python-dateutil-2.2.win32.exe
1 item


C:\Windows\system32\cmd.exe
D:\Packages\six-1.5.2>python setup.py config
running config
D:\Packages\six-1.5.2>python setup.py build
running build
running build_py
creating build
creating build\lib
copying six.py -> build\lib
D:\Packages\six-1.5.2>python setup.py bdist_wininst

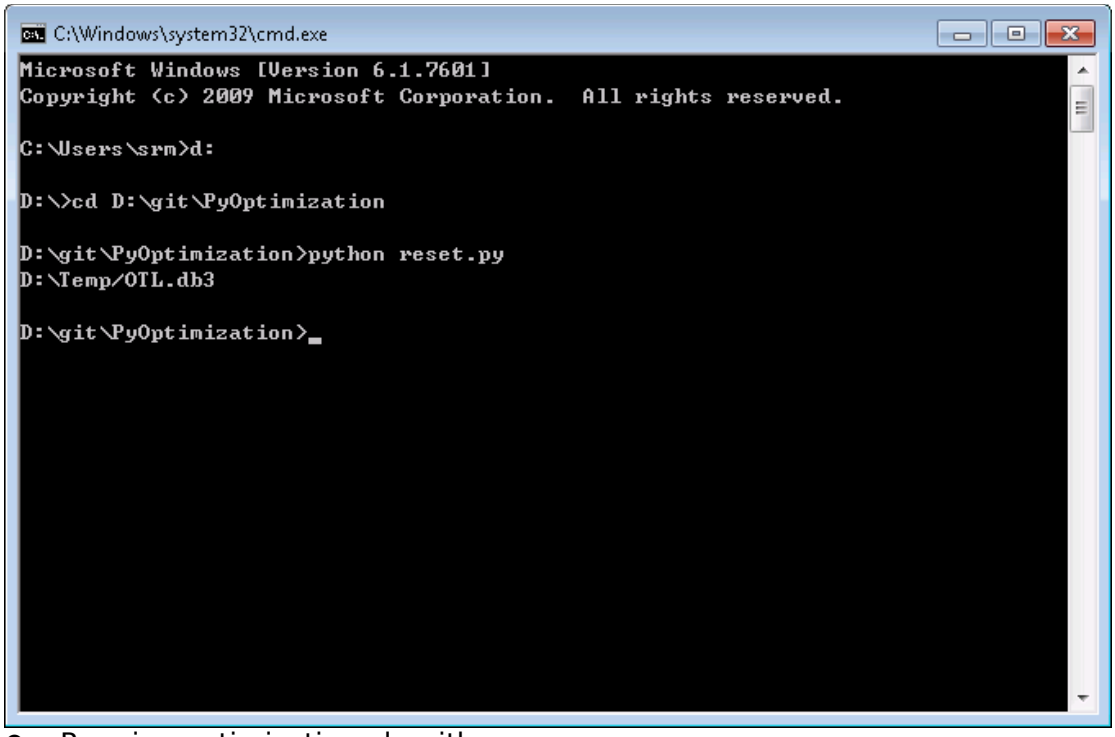


Using PyOptimization



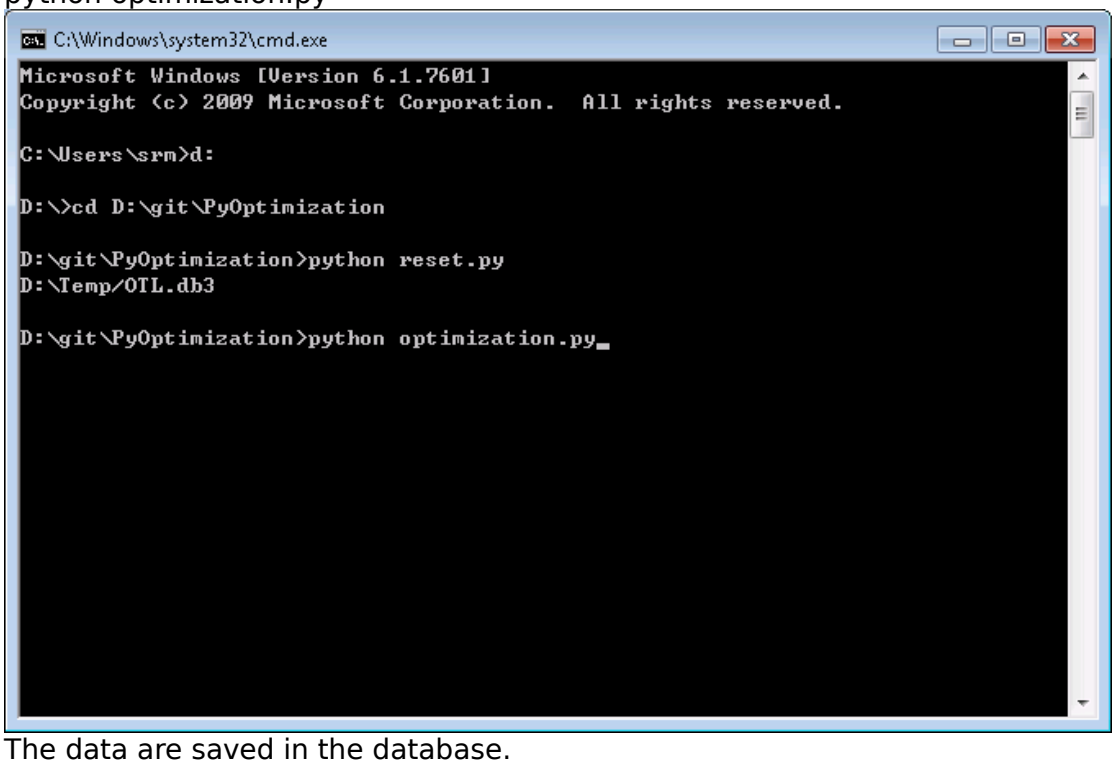
- Creating an empty database:

```
d:
cd D:\git\PyOptimization
python reset.py
```

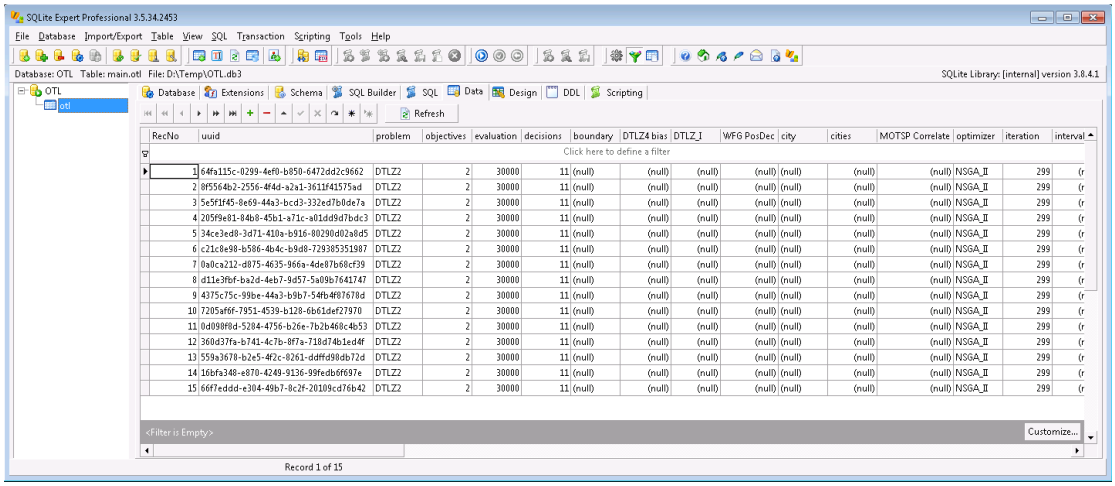


- Running optimization algorithms:

python optimization.py

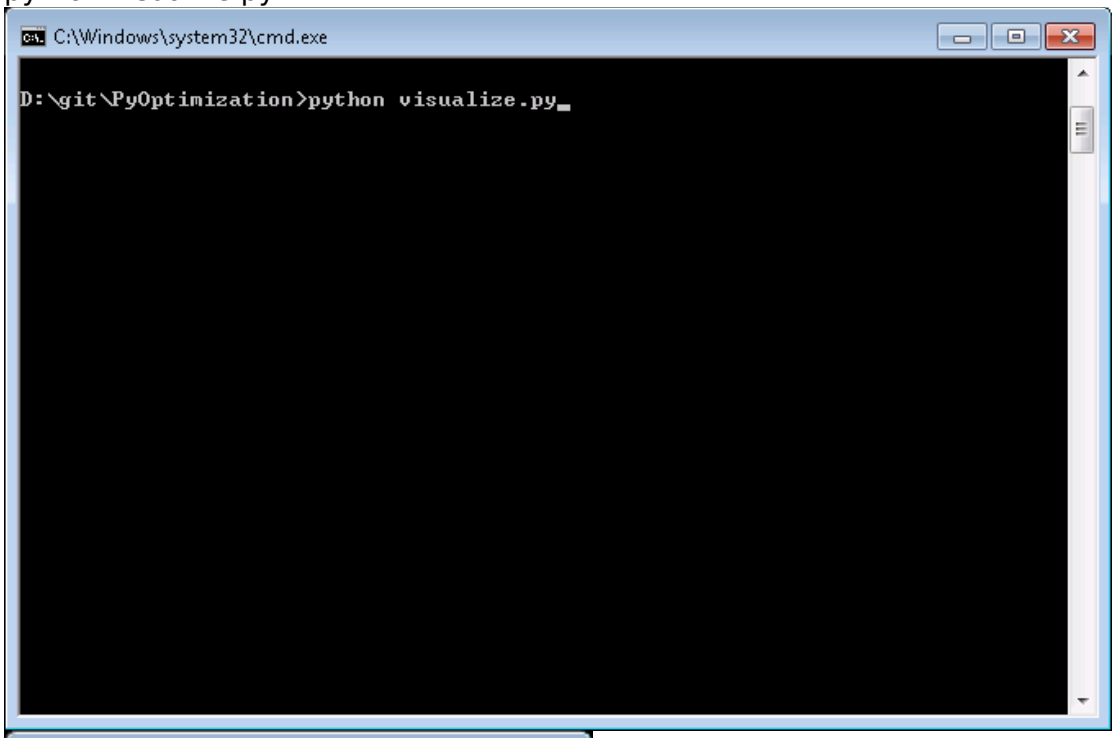


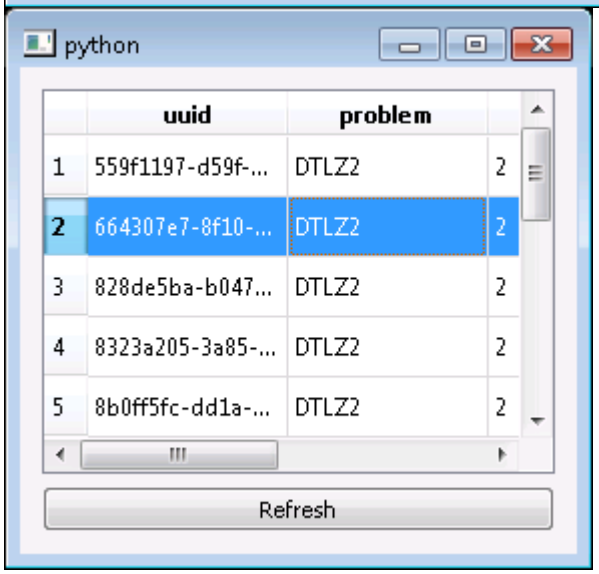
The data are saved in the database.

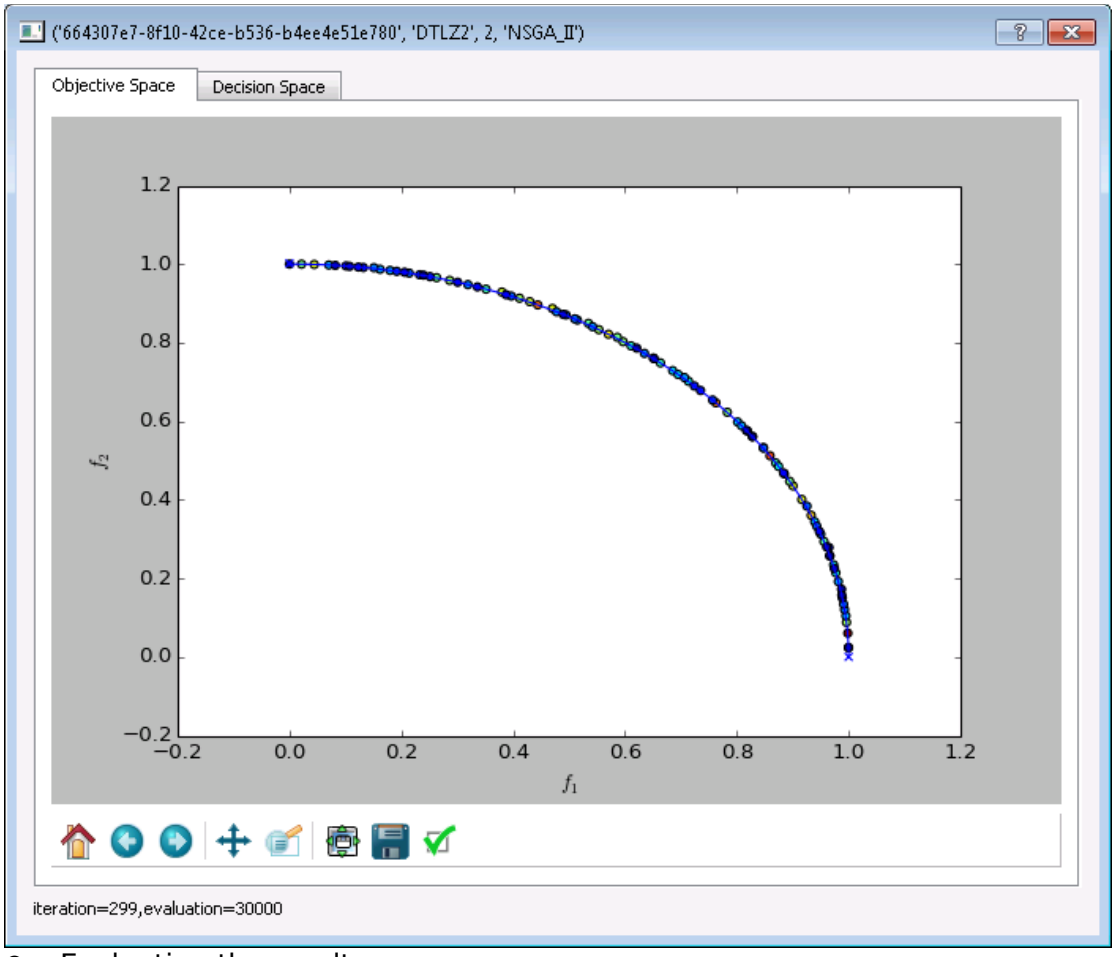


- Visualizing the results:

python visualize.py

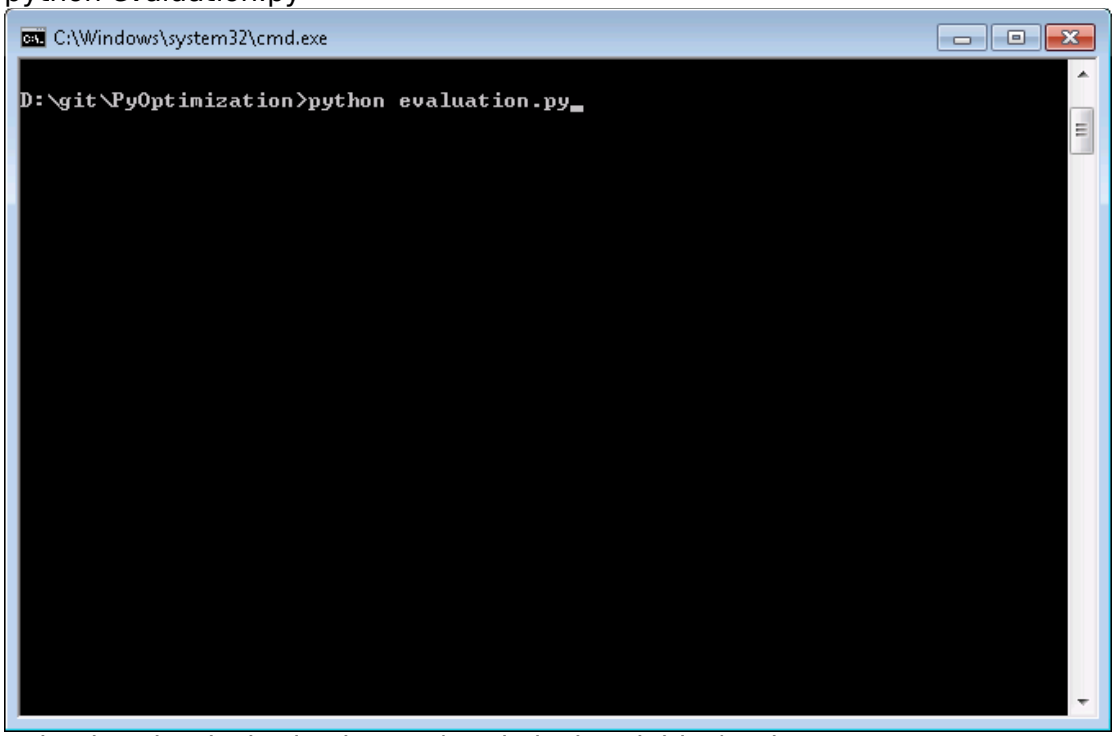




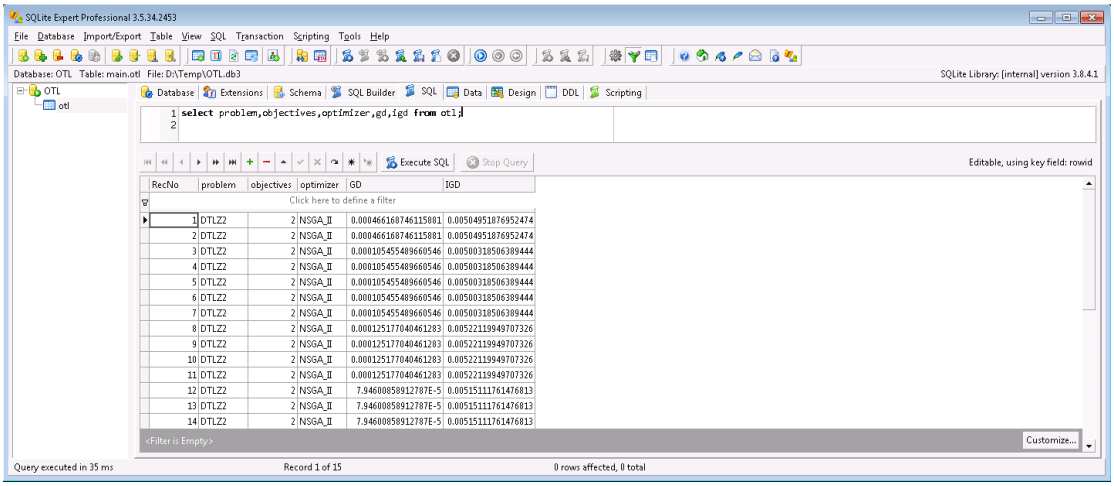


- Evaluating the results:

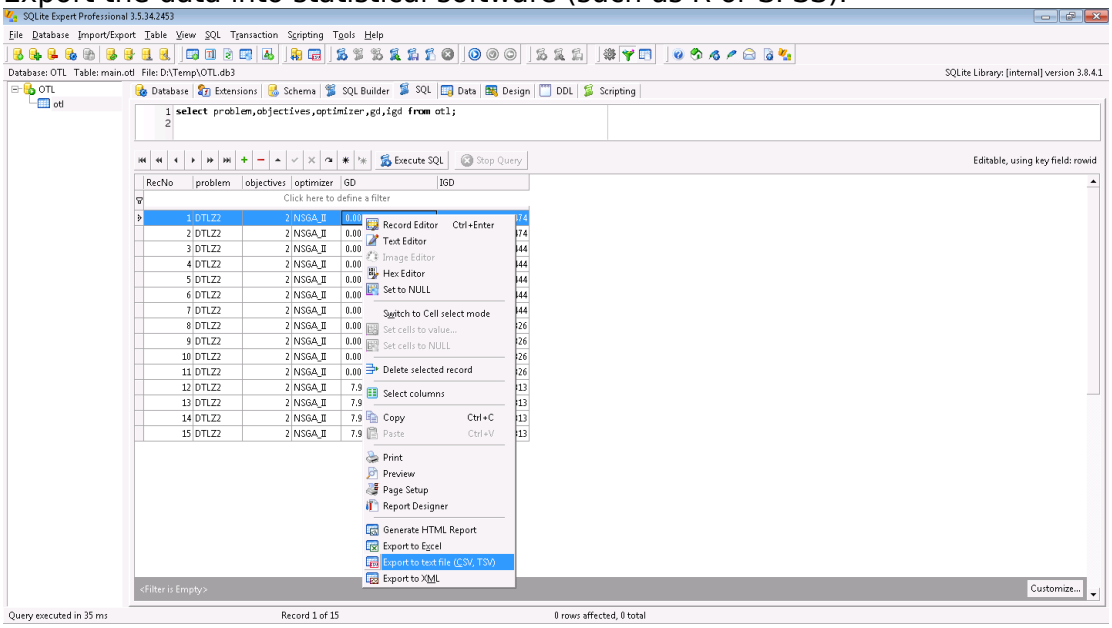
python evaluation.py



Selecting the desired columns (statistical variables) using SQL.

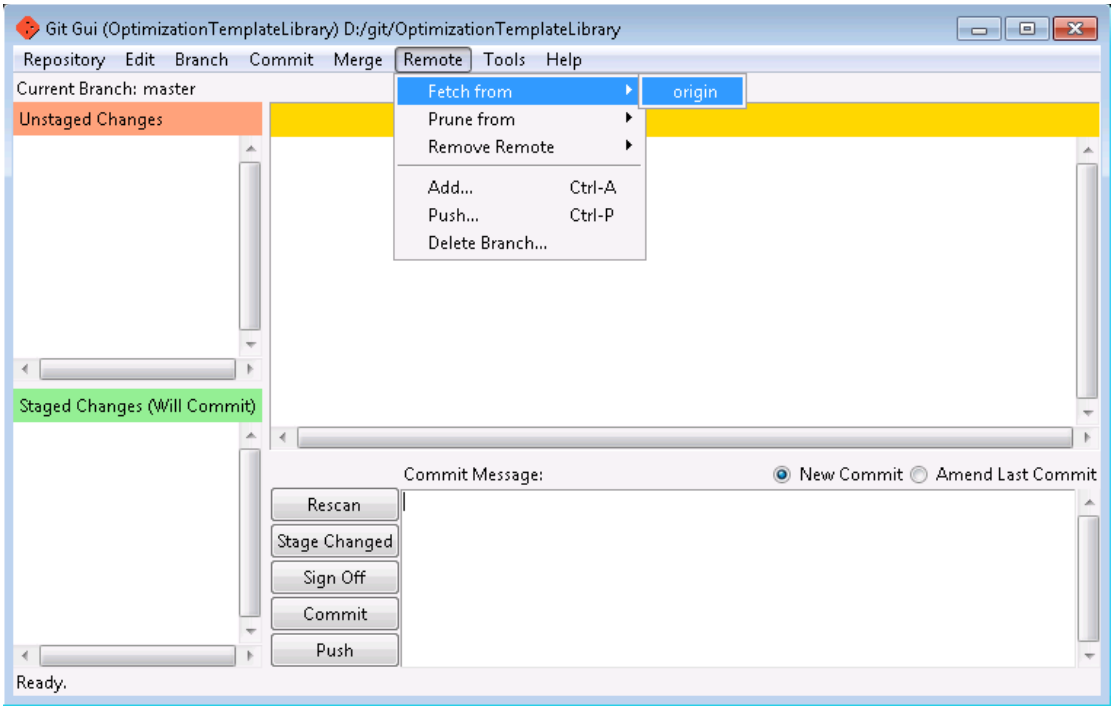


Export the data into statistical software (such as R or SPSS).

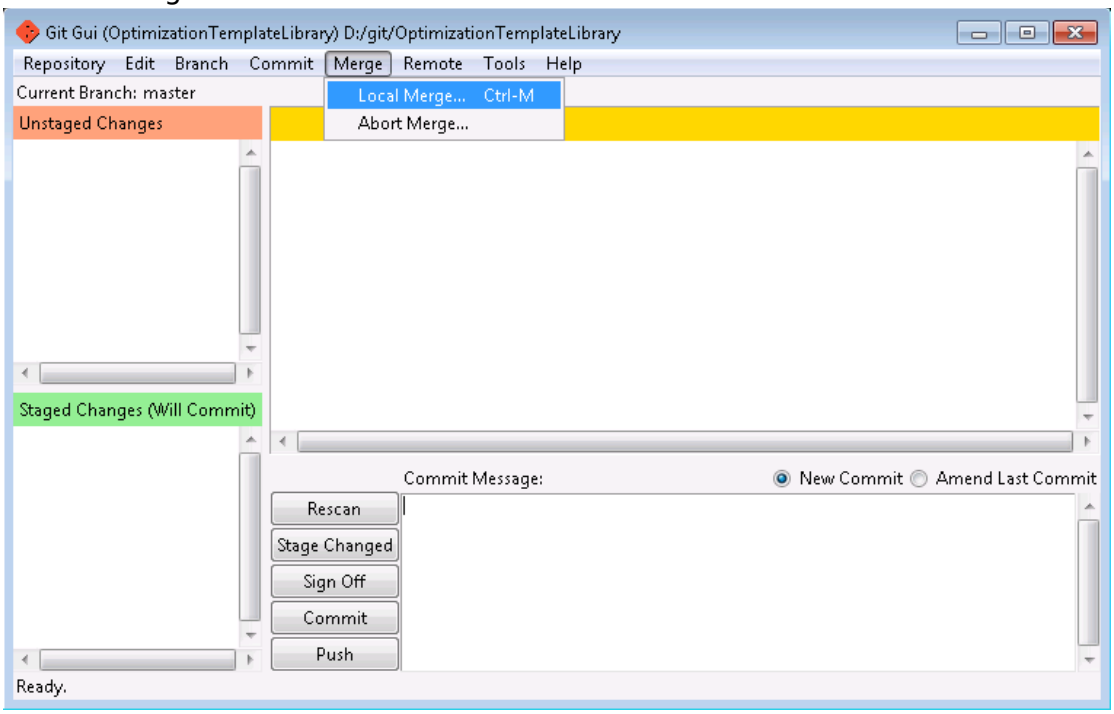


Updating with Git

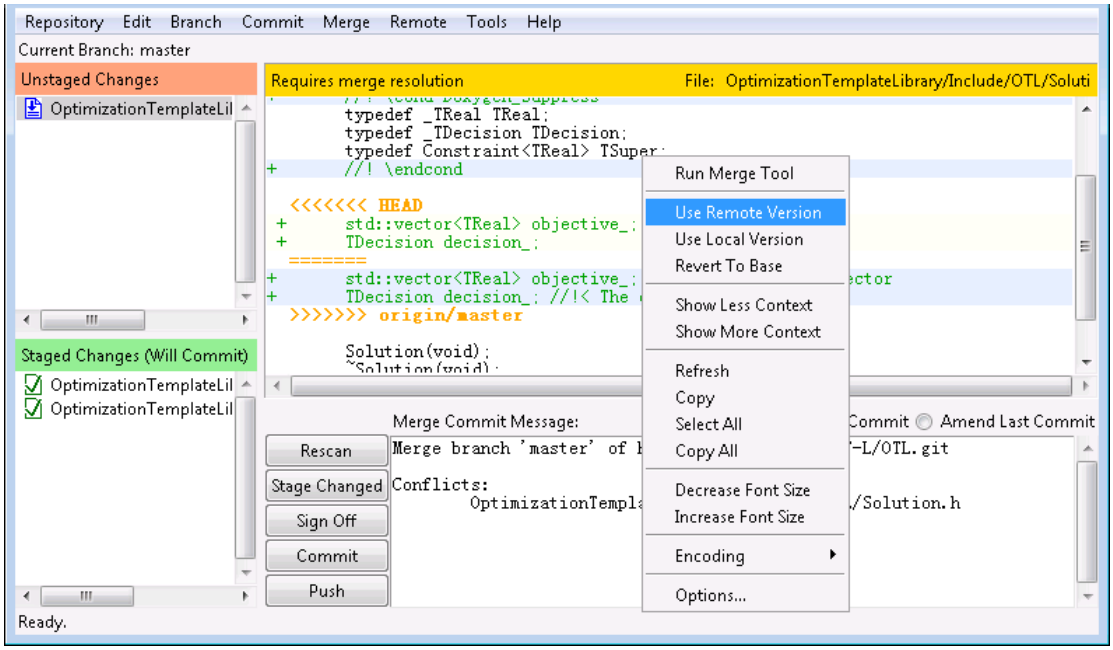
- Git fetch:



- Git merge:



- If conflict occurs, please handle it properly:


Repository Edit Branch Commit Merge Remote Tools Help
Current Branch: master
Unstaged Changes
OptimizationTemplateLil
Requires merge resolution
File: OptimizationTemplateLibrary/Include/OTL/Soluti
typedef _TReal TReal;
typedef _TDecision TDecision;
typedef Constraint<TReal> TSuper;
//! \endcond
<<<<<<< HEAD
std::vector<TReal> objective_;
TDecision decision_;
=======
std::vector<TReal> objective_;
TDecision decision_; //!< The
>>>>>>> origin/master
Solution(void);
Run Merge Tool
Use Remote Version
Use Local Version
Revert To Base
Show Less Context
Show More Context
Refresh
Copy
Select All
Copy All
Decrease Font Size
Increase Font Size
Encoding
Options...
Staged Changes (Will Commit)
OptimizationTemplateLil
OptimizationTemplateLil
Merge Commit Message:
Commit
Amend Last Commit
Rescan
Stage Changed
Sign Off
Commit
Push
Merge branch 'master' of
Conflicts:
OptimizationTempla
-L/OTL.git
/Solution.h
Ready.