

User's Guide for ARock

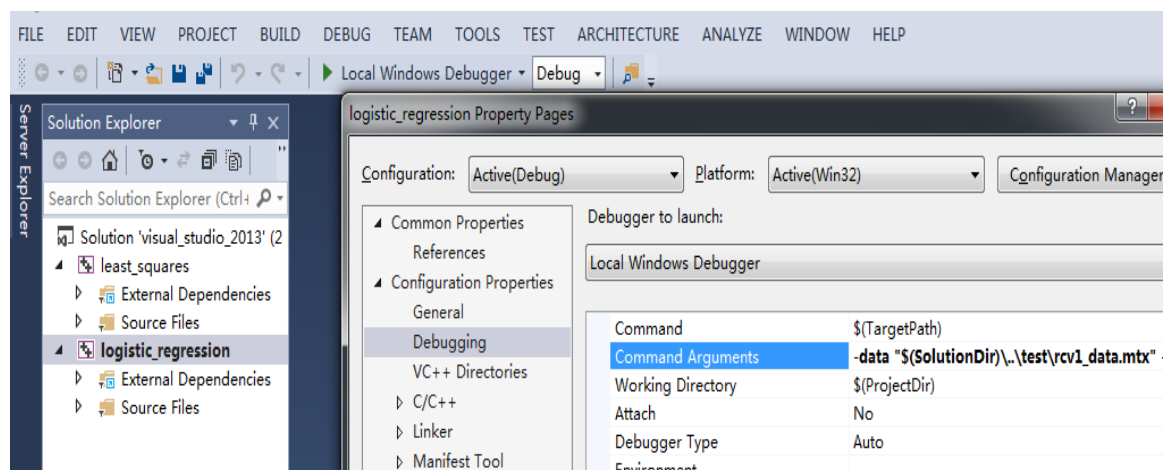
How to launch?

To use ARock on your personal computer with windows system is pretty convenient. We provide Visual Studio solution folders for you to launch without any other configuration.

1. Install Visual Studio.
 - For win7, install Visual Studio 2013 which supports both 32-bit(x86) and 64-bit(x64) . The earlier version may work, but we recommend VS 2013 to avoid configuration error.
 - For win8, you can choose Visual Studio 2015 or 2013. If you choose VS 2015, make sure your PC is 64-bit to avoid configuration error, otherwise install VS 2013.You can download from:
<https://www.visualstudio.com/en-us/downloads/download-visual-studio-vs.aspx>
2. Download ARock.zip from Github website and unzip.
<https://github.com/ZhiminPeng/ARock>
3. Click on .sln file to launch ARock in Visual Studio without other configuration.
 - For VS 2013, open visual_studio_2013 folder, click on visual_studio_2013.sln;
 - For VS 2015, open visual_studio_2015 folder, click on visual_studio_2015.sln.

The solution file supports both Debug and Release version, but under x64 for VS 2015.

4. Click DEBUG->START DEBUGGING to run the active project.
5. To do your own test, you need to set command arguments which are set to load our test data by default. The place to modify command arguments is:



Command Line Arguments Options

- type regularization type, can be l1 or l2, default l2.
- lambda regularization parameter, default 1.
- is_sparse if the data format is sparse or not, default 0.
- data the directory and file name for the data file, matrix format features x samples.
- label the directory and file name for the labels.
- nthread the total number of threads, default is set to 2.
- epoch the total number of epoch, default is set to 10.
- flag the flag for output, default 0.

For example, if your PC has 4 cores, then you can use -nthread 4 to use all the 4 cores. All the data files you try to test should be in form of MatrixMarket (.mtx).

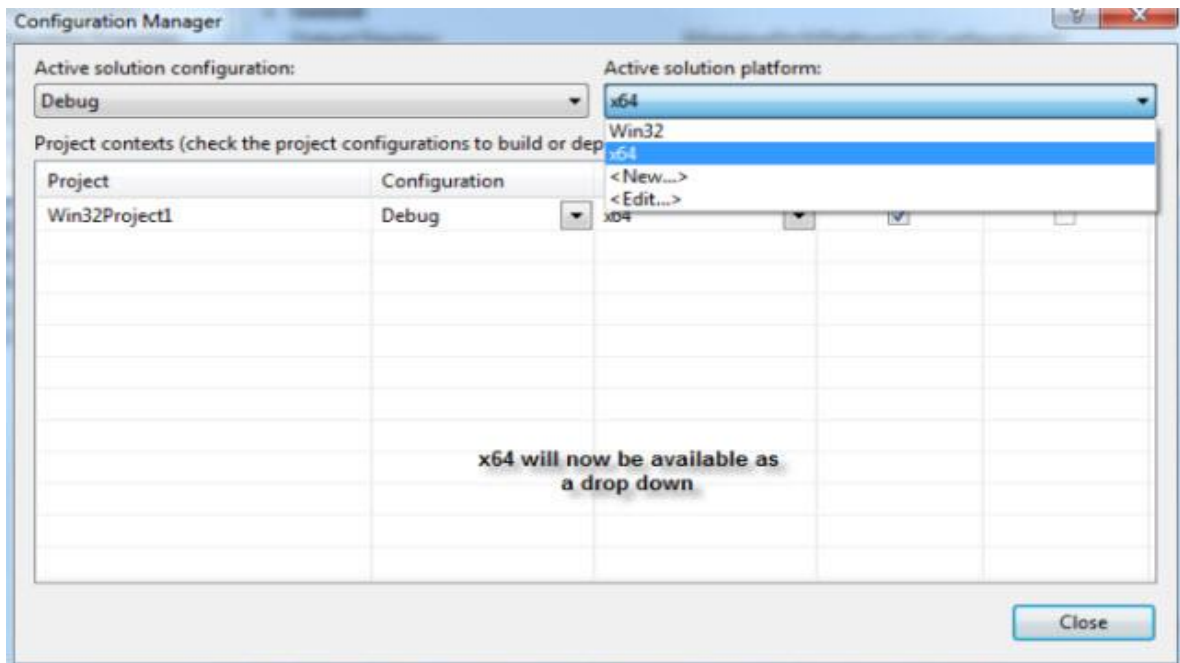
Check <http://www.math.ucla.edu/~zhimin.peng/ARock/opt/regression.html> for more help.

Possible Errors

1. Cannot open include file: 'xyz.h': No such file or directory.

Sol:

This may happen if you are using VS 2015. Set your current configuration platform to X64.



2. Platform Toolset doesn't fit.

Sol:

Set the platform toolset version to your own built-in one.

v110 for vs2012 ; v120 for vs2013; v140 for vs2015

