Instruction for installing AMES V5.0 development version

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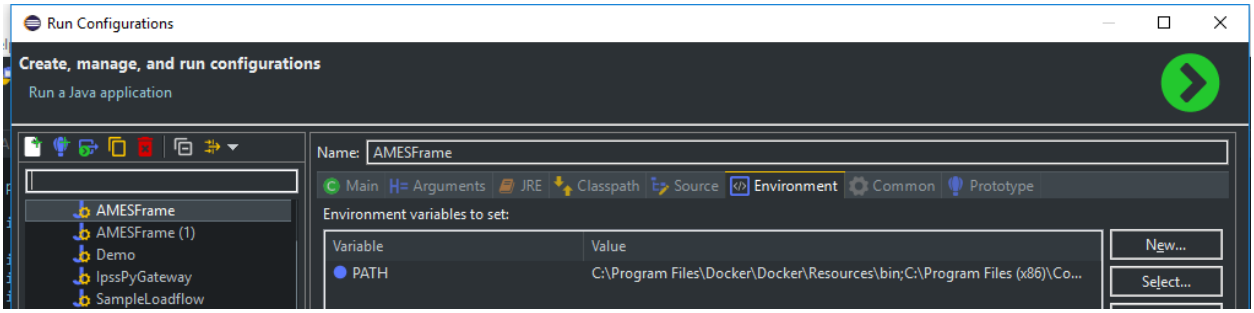
Note: The procedure below is developed for Windows; for other OS, some changes may be needed)

1. Follow the following steps to install the JRE, Cbc, Python and PSST
   a. For JRE, Java version 8 is recommended, can be downloaded from: https://java.com/en/download/
   b. For Python, miniconda is recommended. https://conda.io/miniconda.html
   c. Install an optimization solver for PSST. Cbc is the default solver for now. Cbc-2.7.5-win64-intel11.1.zip can be downloaded from https://github.com/ITDProject/ERCOTTestSystem/blob/master/Cbc-2.7.5-win64-intel11.1.zip

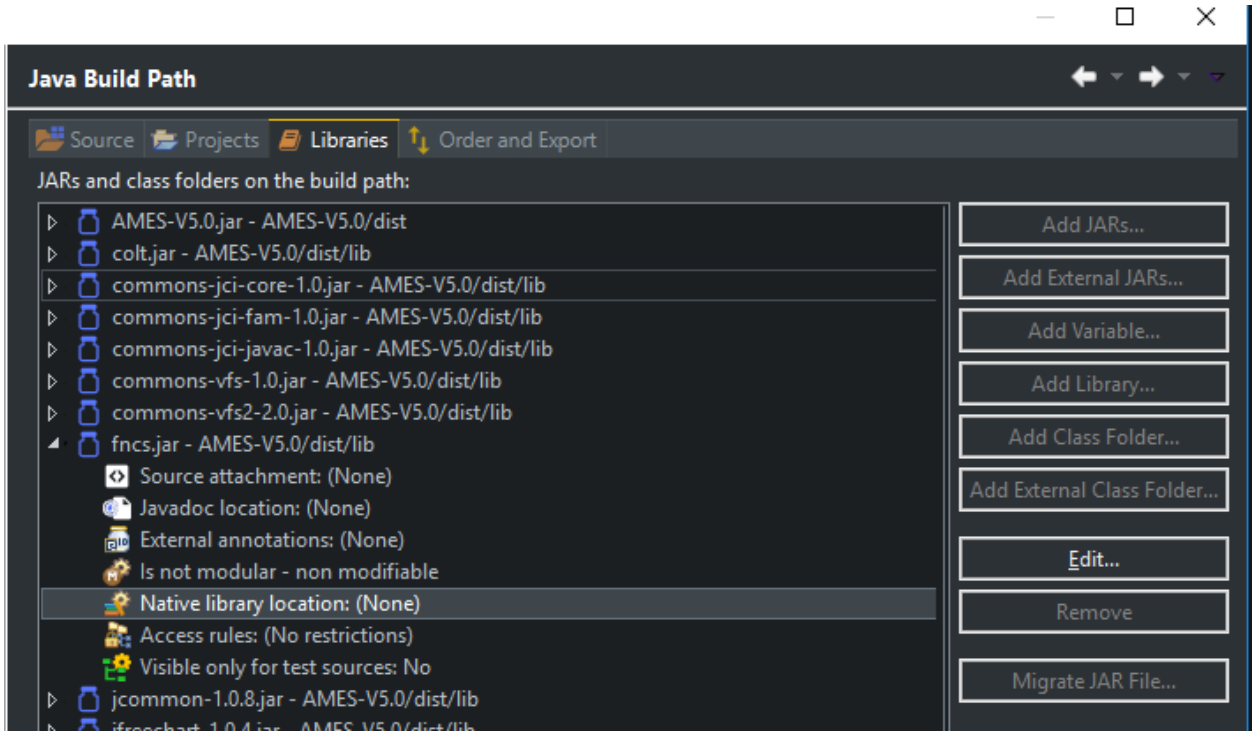
      Note: Newer version of Cbc may cause some compatibility issue.

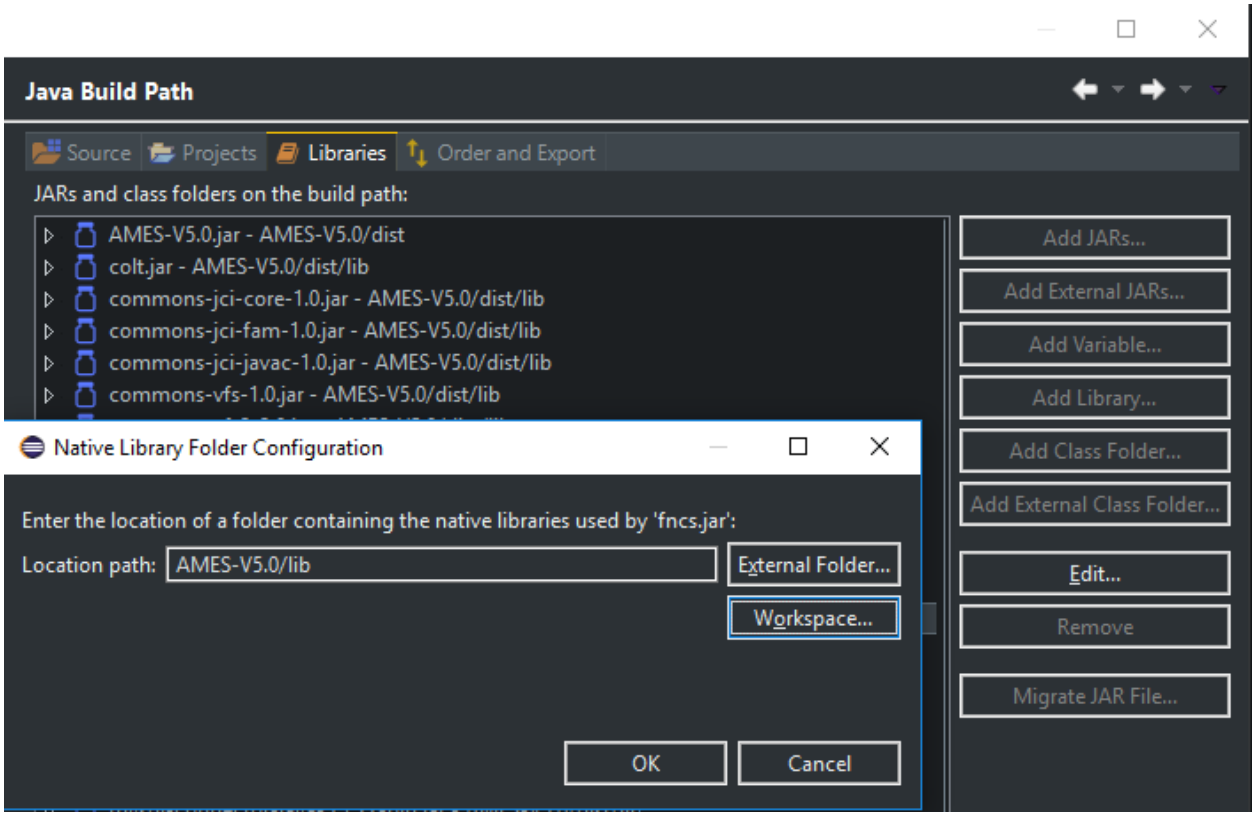
   d. To install PSST:
      cd C:/<Your_location_to_AMES-v5.0>/psst
      pip install e .
      Note: The pip install command contains \period" at the end.
      Note: PSST has its own dependencies which are installed when the above command is passed.

2. Install Eclipse IDE (although originally Netbeans was used for AMES development). It could be downloaded from: https://www.eclipse.org/downloads/packages/
3. Then import AMES-V5.0 as a project into Eclipse
4. Add the "PATH" variable under the Run->Run Configuration->Environment, so PSST (AMES calls it to solve the market) can call the optimization



5. As AMES V5.0 requires the FNCS library, and the native library (*.dll) file needs to be specified. You will need to check the build path, and edit and set the native library location if the location has not been specified.





If you confront the following error, most likely the native library is not properly set up. Make sure the JNIfncs dll is in the <lib> folder

```
Exception in thread "main" java.lang.UnsatisfiedLinkError: no JNIfncs in
java.library.path
	at java.lang.ClassLoader.loadLibrary(ClassLoader.java:1867)
	at java.lang.Runtime.loadLibrary0(Runtime.java:870)
	at java.lang.System.loadLibrary(System.java:1122)
	at fncs.JNIfncs.<clinit>(JNIfncs.java:7)
	at AMESGUIFrame.AMESFrame.main(AMESFrame.java:5567)
```