Running AMES V5.1 Using Test Case Input Data

Step 1: Running AMES V5.1 in basic default form

After the installation instructions 1-6 in the `INSTALLATION.rst' file have been carried out, AMES V5.1 can be run using either of the following two options:

Option 1 (Without FNCS): Users who intend to run AMES V5.1 without using FNCS can simply execute the command below from the command line prompt:

java -jar -Djava.library.path=%YourLocationForAmesV5.1%/fncsDependencies "%YourLocationForAmesV5.1%/dist/AMES-V5.1.jar"

Option 2 (With FNCS): Users who intend to run AMES V5.1 using FNCS need to carry out several special set-up instructions. Example files provided in the 'TESAgents' subdirectory demonstrate how users can set-up AMES V5.1 to run with FNCS. Advanced users can modify these example files to run AMES V5.1 with FNCS in a manner that suits their purposes.

To run AMES V5.1 with FNCS after all special set-up instructions have been carried out, execute the following command from the command line prompt:

1. Change the directory to TESAgents using

   Cd C:/YourLocationForAmesV5.1/TESAgents/

2. Generate YAML file for AMES by executing the below command:

   python YAMLWriter.py NTxBus NLSE TxBus

   The above commands depend on the following user-specified parameters:

   NTxBus - The number of transmission buses

   NLSE - The number of LSEs present in the tranmission model

   TxBus - The transmission bus to which the distribution system is considered to be connected to (Note: This input is needed if this model is used within an ITD system, else it defaults to 1)

   (Example usage: python YAMLWriter.py 2 1 1)

   The generated YAML file contains the required subscriptions for configuring AMES.

3. If the name of the user's test case data input file is `Name.dat', the user should run AMES V5.1 using

   runAMES.bat Name

Caution: Note that the file extension `.dat' needs to be omitted.

If the user wants to end the simulation run in the middle of the run, the user needs to execute 'kill5570.bat'.

Note: Developers who have made modifications in the AMES V5.1 code will need to compile AMES V5.1 prior to running AMES V5.1. To compile AMES V5.1, execute the following command from the command line prompt:

1. Change the directory to TESAgents using

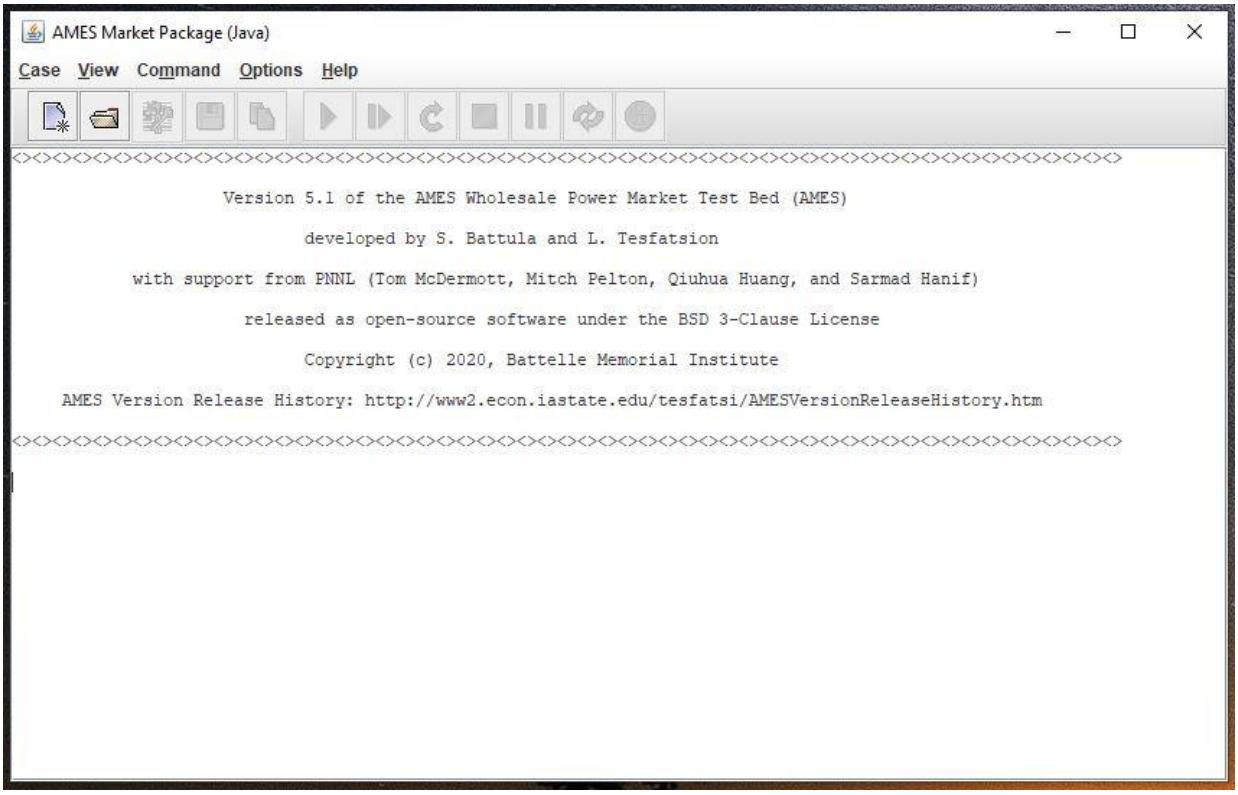
   Cd C:/YourLocationForAmesV5.1/TESAgents/

2. Compile using

   compileAMES.bat

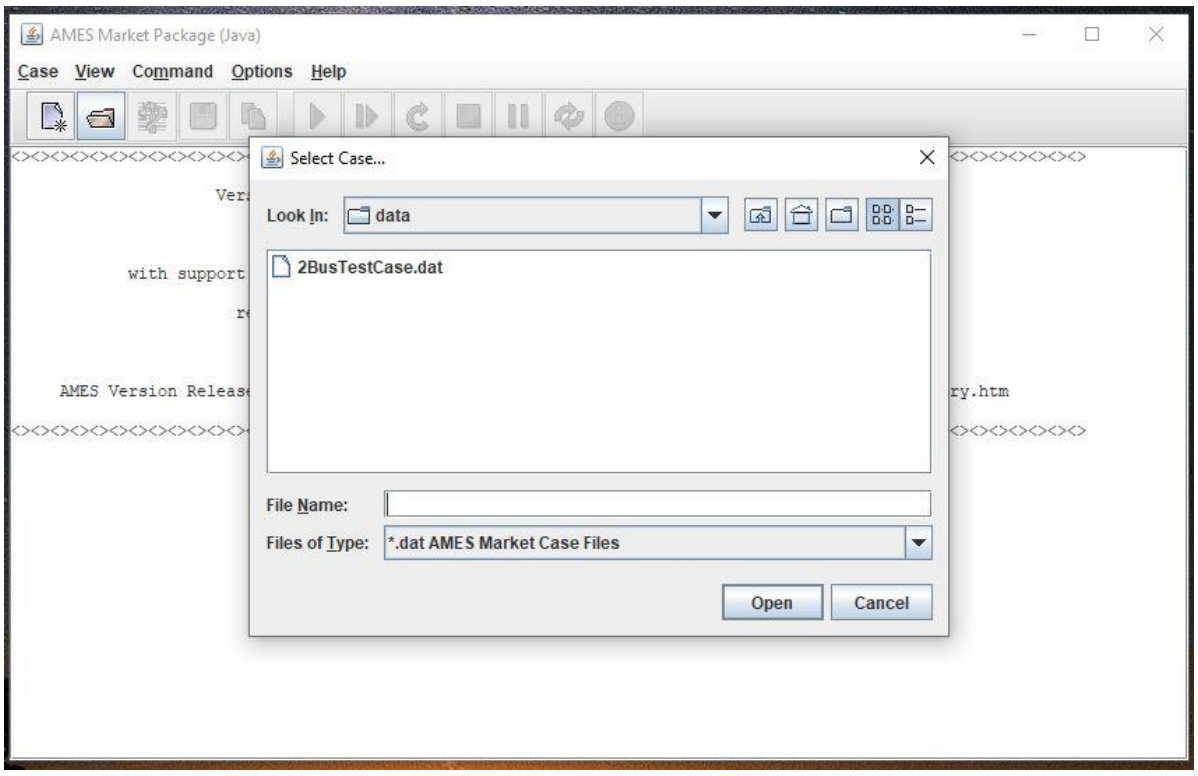
Step 2: Screen display check

After running AMES V5.1 using Option 1 or Option 2, the following screen for the AMES Graphical User Interface (GUI) should be displayed.



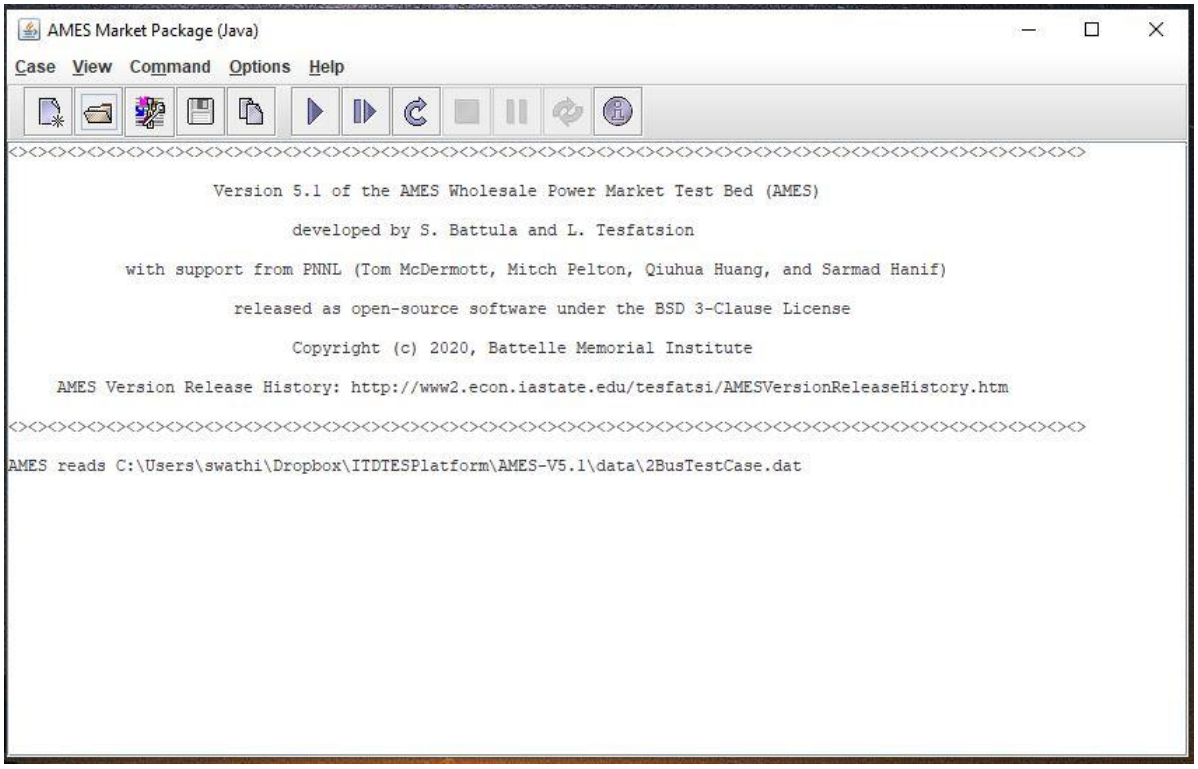
Step 3: Select a test case data input file

To select a test case data input file (e.g. `2BusTestCase.dat') located in the 'data' subdirectory, first select the "Case->Open Case" command from the main AMES GUI menu and then select the required test case data input file.



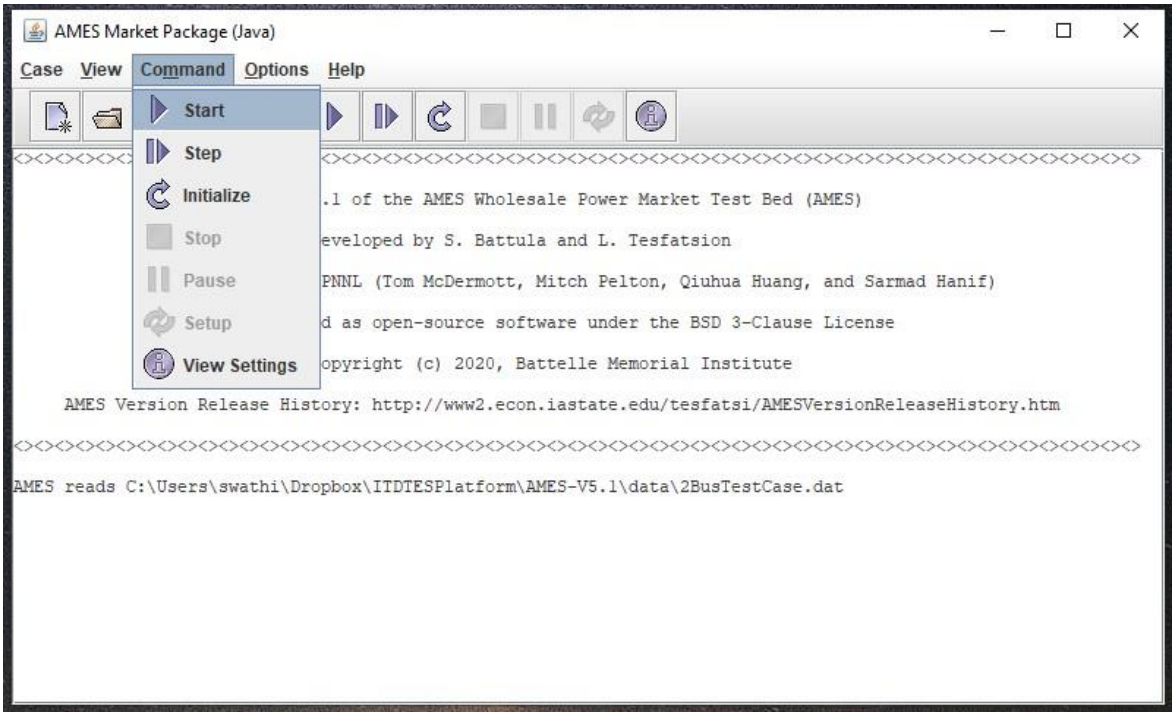
Step 4: Open the selected test case data input file

After selecting the desired test case data input file, click the 'Open' button along the bottom right of the dialogue box. The following screen should then appear.

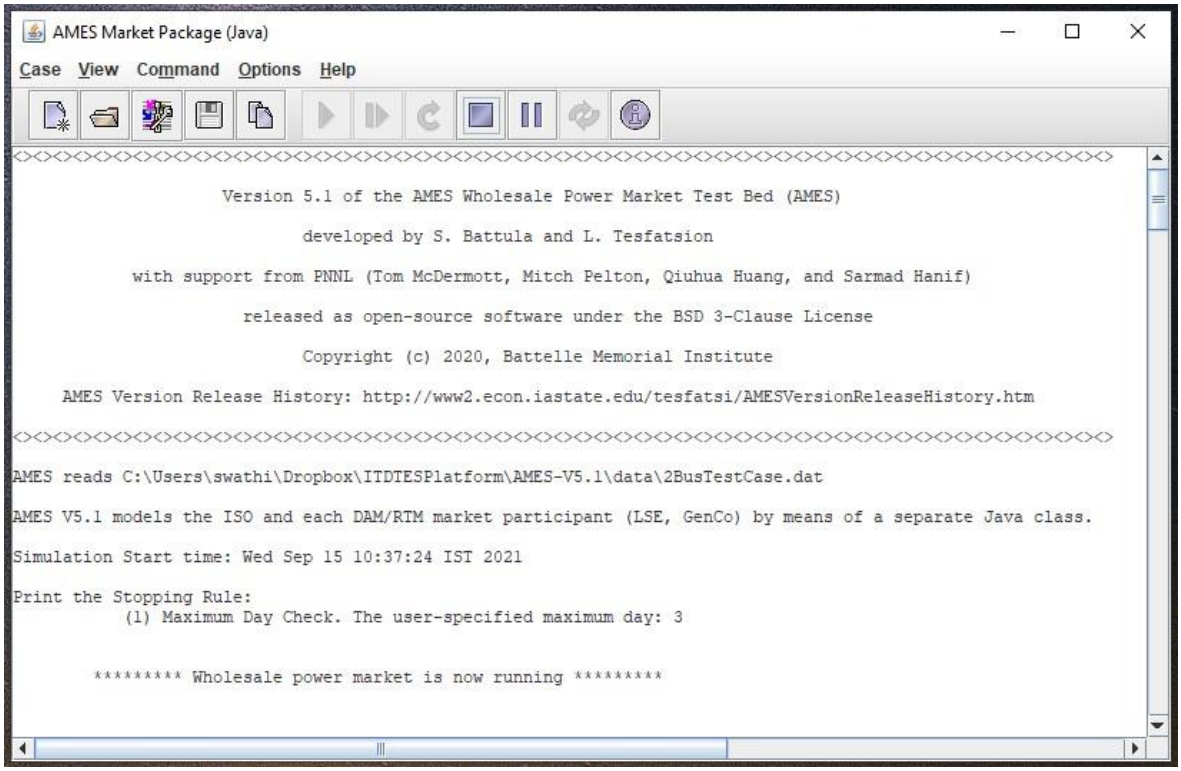


Step 5: Running the selected test case data input file

To run the selected test case data input file, either click the “Start” icon on the AMES GUI toolbar or (as depicted below) select “Command->Start” from the main AMES GUI menu.



AMES V5.1 should then commence running, as indicated in the following screen shot.



Unless errors are found, AMES V5.1 will continue to run for `MaxDay' simulated days. At the end of this simulation run, a test case data output file will be created in the `data/outputFiles directory; see the illustrative screen shot below.