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Subject: Package for Testing DSM2 General Transport Model Compilation

This memo presents step-by-step instruction on compiling DSM2 GTM from a zipped package.

## Required Software

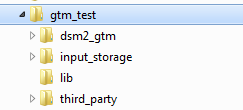
1. Visual Studio 2008
2. Intel Fortran Composer 11+
3. Subversion <http://subversion.apache.org/packages.html>
4. Tortoise SVN <http://tortoisesvn.net/downloads>
5. Flex and Bison packages in Cygwin <http://www.cygwin.com/setup.exe>

(make sure ../cywin/bin set in the environment path)

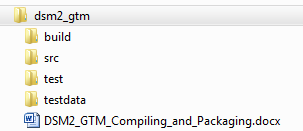
1. Python version 2.x (not 3.x) <http://www.python.org/download/>

**DSM2\_GTM project**

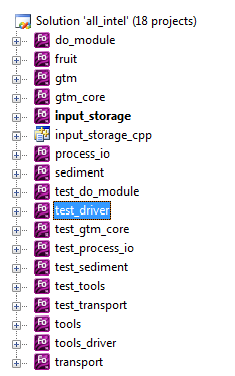
1. This package contains four folders: dsm2\_gtm, input\_storage, lib and third\_party. Folders input\_storage, lib and third\_party remain untouched.



1. Dsm2\_gtm folder contains four folders and this documentation. Folder build contains projects, src and test contains codes, and testdata contains sample data for testing.



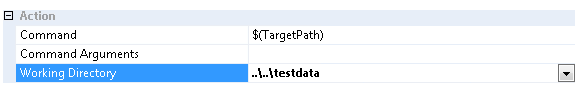
1. Go to dsm2\_gtm/src/input\_storage and double click on generate\_gtm.py (or open command window in that directory and run python generate\_pty.py) to generate all the \*.h, \*.cpp and \*.fi needed to parse input tables. Later on, if wanting to introduce new tables or columns, make the modification on generate\_gtm.py and re-generate all the files. Do not try to manually modify those C++ files.
2. Go to dsm2\_gtm/build/all and launch the solution by double clicking on all\_intel.sln. The entire solution so far should contains 18 projects as below.



1. Right click on project test\_driver and rebuild the project. The status from output window should look as below.



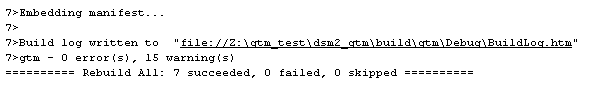
1. Right click on project test\_driver, go to debugging property and specify working directory to ..\..\testdata.



1. Right click on test\_driver and run Debug/Start new instance. This will run all the tests. The output window should look as below. This implies the compilation for testing units works fine.



1. The next step is to test GTM main driver. Right click on project gtm and rebuild the project. The status from output window should look as below.



1. Right click on project gtm, go to debugging property and specify Working Directory to ..\..\testdata\gtm\_main\_test and Command Arguments to gtm.inp.



1. Right click on project gtm and run Debug/Start new instance. This will run GTM main program. The output window should look as below. This implies the compilation for GTM is successful.

