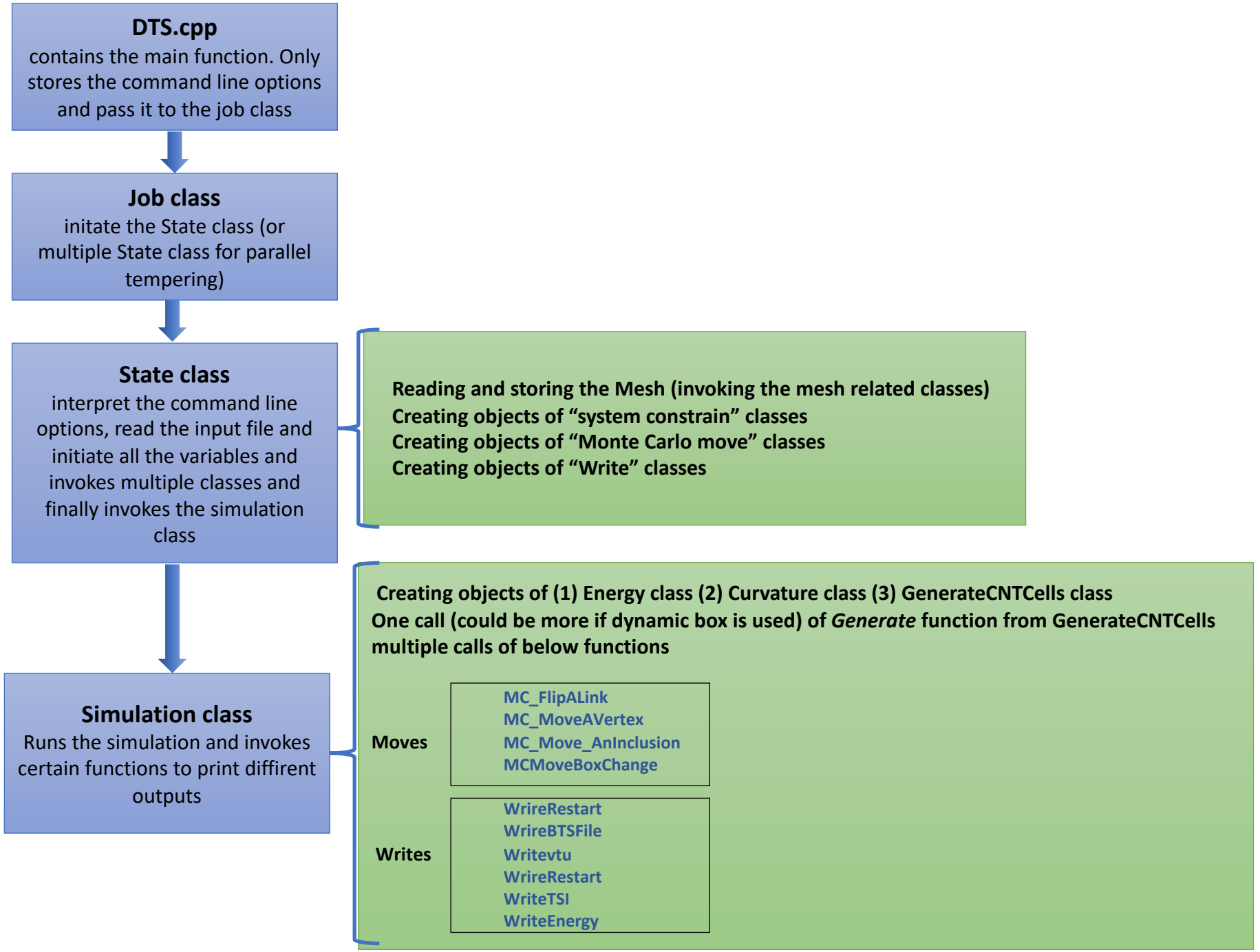
FreeDTS Source Code Map

This file provide a map of the important classes in the code (no all).


DTS.cpp
contains the main function. Only stores the command line options and pass it to the job class
Job class
initate the State class (or multiple State class for parallel tempering)
State class
interpret the command line options, read the input file and initiate all the variables and invokes multiple classes and finally invokes the simulation class
Reading and storing the Mesh (invoking the mesh related classes)
Creating objects of “system constrain” classes
Creating objects of “Monte Carlo move” classes
Creating objects of “Write” classes
Simulation class
Runs the simulation and invokes certain functions to print diffirent outputs
Creating objects of (1) Energy class (2) Curvature class (3) GenerateCNTCells class
One call (could be more if dynamic box is used) of Generate function from GenerateCNTCells
multiple calls of below functions
Moves
MC_FlipALink
MC_MoveAVertex
MC_Move_AnInclusion
MCMoveBoxChange
Writes
WrireRestart
WrireBTSFile
Writevtu
WrireRestart
WriteTSI
WriteEnergy

Mesh related classes: (Reading and storing the Mesh)

CreateMashBluePrint class: Reads the topology file and store the data
Restart class: check point class (saving and reading)
MESH class: Stores the mesh into a modified version of “half-edge data structure”.

Vertex class
triangle class
link class
inclusion class

system constrain classes (the functionality of each class is defined in the manual)

CouplingtoFixedGlobalCurvature class;
SpringPotentialBetweenTwoGroups class;
CmdVolumeCouplingSecondOrder class;
Apply_Osmotic_Pressure class;
Apply_Constant_Area class;
CoupleToWallPotential class;

Monte Carlo move classes

LinkFlipMC class;
VertexMCMove class;
InclusionMCMove class;
PositionRescaleFrameTensionCoupling class