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 Energy class object
Creating Curvature class object
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)

 $Coupling to Fixed Global Curvature\ class;$

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