Reference paper: Dunbar A J, Craven B A, Paterson E G. Development and validation of a tightly coupled CFD/6-DOF solver for simulating floating offshore wind turbine platforms[J]. Ocean Engineering. 2015.

I have tried to modify the sixDoFRigidBodyMotion and the interDyMFoam solver to build the tightly coupled CFD/6-DOF algorithm. Some modifications are made in the interDyMFoam.C and tightCoupledsixDoFRigidBodyMotionSolver.C. I use some global variables (defined in the rfi.H file) to transfer information between the interDyMFoam.C and the tightCoupledsixDoFRigidBodyMotionSolver.C. to control the sub loops between the fluid computation and the rigid body Motion. But it failed to communicate by these global variables. By the way, the sixDoFRigidBodyMotion lib are Dynamic Link Library. So I am afraid this maybe have differences to use the global variables. Or are there some other methods to complete this algorithm?

And I also want to know how the function mesh.update() in the code of \*\*\*\*DyMFoam can link the sixDofMotionSolver lib to update the mesh?

More information and discussion is welcomed, my E-mail address is [maoyanjun\_dut@foxmail.com](mailto:maoyanjun_dut@foxmail.com)

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