Running the 3-Point Bending Simulation

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Open 3-Point Cantilever Example

- Using the shortcut you previously created, navigate to the tutorial shortcut -> LIGGGHTS_Flexible_Fibers -> examples -> BondPackage -> Tutorials -> Single_Tests -> 3_point_cantilever
- Open in.liggghts
- File shows the use of if statement block

Running the Example

- A input script can be ran by running the following command liggghts –in in.liggghts
- LIGGGHTS will now read and interpret your input script

Running the Example

mschramm@matt-PC: /mnt/c/Users/matt/Documents/GitHub/LIGGGHTS-Flexible-Fibers-Public/examples/BondPackage/Tutorials/Single_Tests/3_point_bending

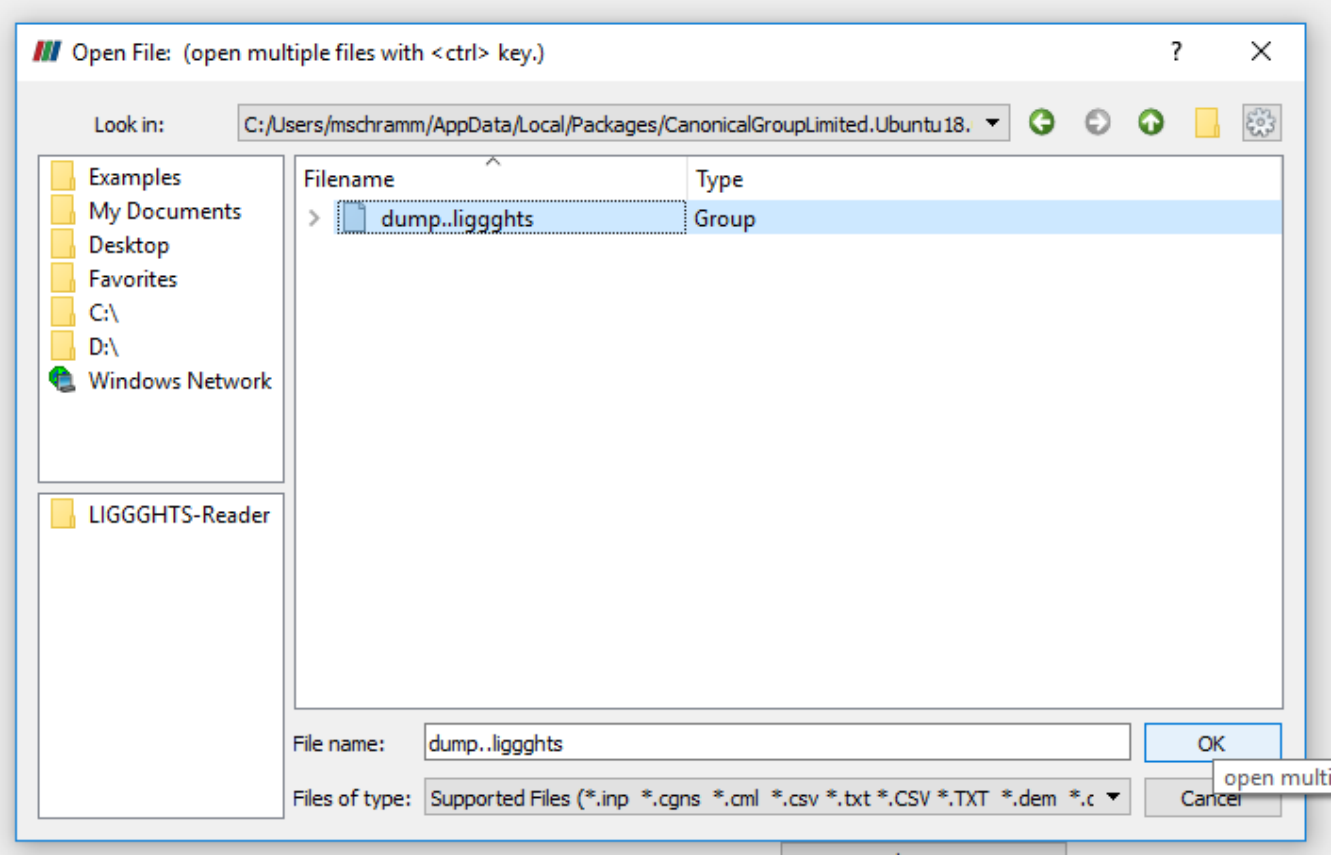
```
Outpt time (%) = 4.7e-05 (2.13442)
Other time (%) = 0.001822 (82.743)

Nlocal:    20 ave 20 max 20 min
Histogram: 1 0 0 0 0 0 0 0 0 0
Nghost:    0 ave 0 max 0 min
Histogram: 1 0 0 0 0 0 0 0 0 0
Neighs:    19 ave 19 max 19 min
Histogram: 1 0 0 0 0 0 0 0 0 0

Total # of neighbors = 19
Ave neighs/atom = 0.95
Ave special neighs/atom = 0
Neighbor list builds = 1
Dangerous builds = 0
Setting up run at Tue Dec  4 20:25:27 2018

Memory usage per processor = 19.3805 Mbytes
    Step     Atoms  numbond       sim_time        CPULeft            pfz             pz         KinEng
       1        20       19  8.8886907e-06              0              0 -3.5554763e-08  3.6278016e-49
    1126        20       19    0.010008666       3.320315              0 -4.0034663e-05  5.5091119e-08
    2252        20       19    0.020017331      3.2900138              0 -8.0069326e-05  9.8541479e-10
    3378        20       19    0.030025997      3.2581741              0 -0.00012010399  1.7737931e-09
    4504        20       19    0.040034663      3.2251719              0 -0.00016013865  2.4528402e-09
    5630        20       19    0.050043329      3.4189651   0.0012359648 -0.00020017331  5.1676686e-10
    6756        20       19    0.060051994      3.3448303   0.0025571655 -0.00024020798  8.4520903e-10
    7882        20       19     0.07006066      3.2811115   0.0031511308 -0.00028024264  1.1037384e-09
    9008        20       19    0.080069326      3.2246708   0.0039138545  -0.0003202773  7.8401311e-10
   10134        20       19    0.090077992      3.1715239   0.0046846279 -0.00036031197  7.7879032e-10
   11260        20       19     0.10008666      3.1979363   0.0054361028 -0.00040034663   7.268176e-10
   12386        20       19     0.11009532      3.1424496   0.0061952562 -0.00044038129  7.3114051e-10
   13512        20       19     0.12010399      3.0885376   0.0069500539 -0.00048041596  7.2758876e-10
   14638        20       19     0.13011265      3.0387639   0.0077034411 -0.00052045062  7.2876834e-10
   15764        20       19     0.14012132      2.9886684   0.0084544787 -0.00056048528  7.2985877e-10
```

Looking at the Results

- Notice that new files have been created in the directory you are in (by typing “ls *” and “ls post/*”
- These new files are what we want to look at

Paraview

- Open the dump..liggghts file



Show Particle Forces