RPI MATLAB Simulation profiling result for converting to C++

The simulation is dropping 50, 100, 200 spheres into a box, respectively. The total time step is 300. Following are the snapshot at different time step.
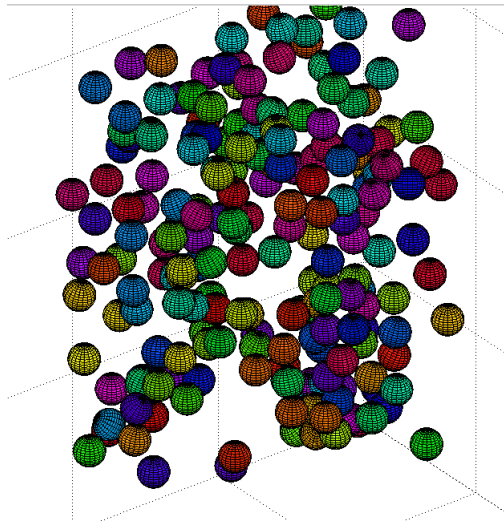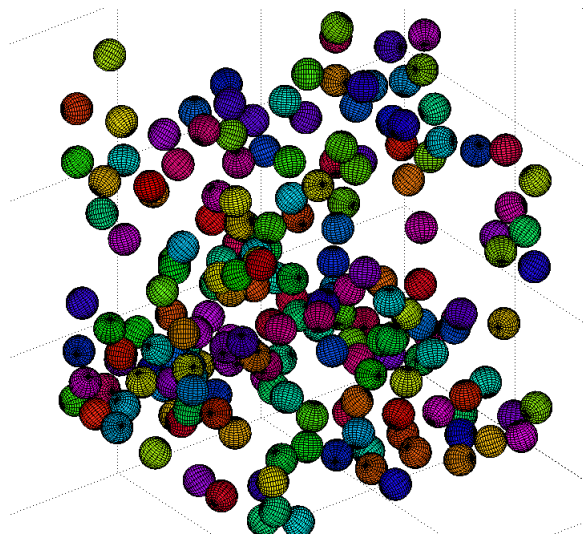

Figure 1: Initial Scene
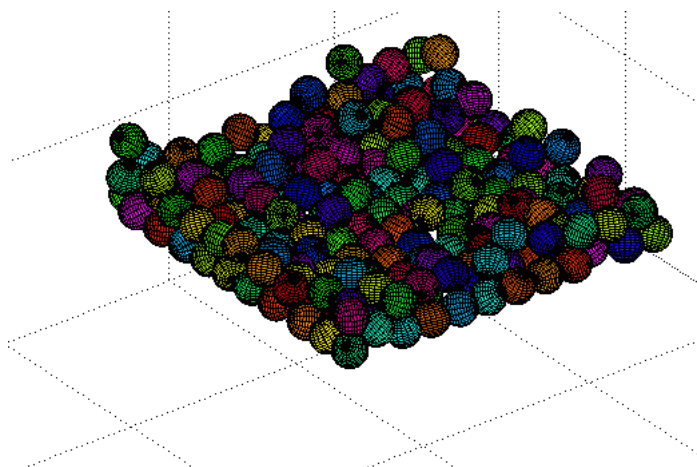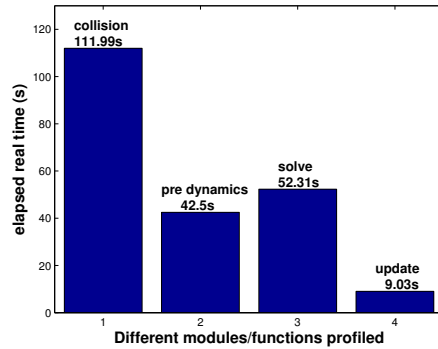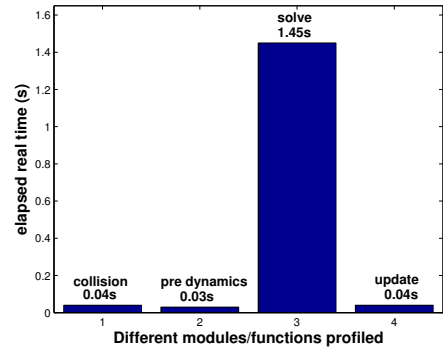
Figure 2: Scene at 70th time step

Figure 3: Final Scene

- 50 spheres

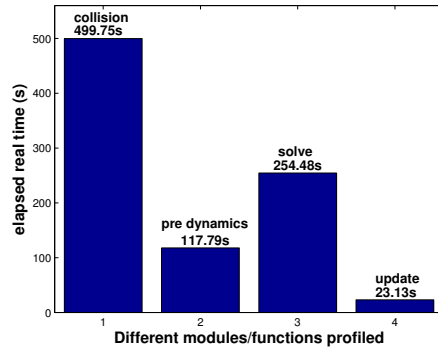**Profiling of elapsed time by each module (MATLAB 50 sph**

collision
111.99s

pre dynamics
42.5s

solve
52.31s

update
9.03s

elapsed real time (s)

Different modules/functions profiled

Profiling of elapsed time by each module(C++ 50 spheres)

solve
1.45s

collision
0.04s

pre dynamics
0.03s

update
0.04s

elapsed real time (s)

Different modules/functions profiled

- 100 spheres

Profiling of elapsed time by each module (MATLAB 100 sph

collision
499.75s

pre dynamics
117.79s

solve
254.48s

update
23.13s

elapsed real time (s)

Different modules/functions profiled

Profiling of elapsed time by each module(C++ 100 spheres)

solve
7.74s

collision
0.19s

pre dynamics
0.05s

update
0.09s

elapsed real time (s)

Different modules/functions profiled
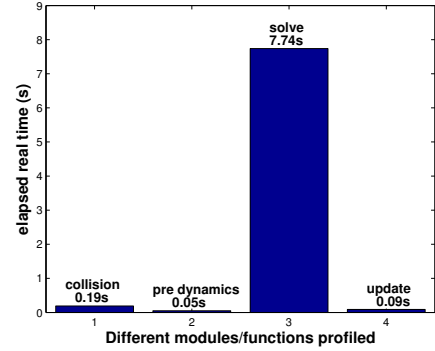
- 200 spheres

Profiling of elapsed time by each module (MATLAB 200 sph

solve
3922.66s

collision
1255.17s

pre dynamics
131.89s

update
53.66s

elapsed real time (s)

Different modules/functions profiled
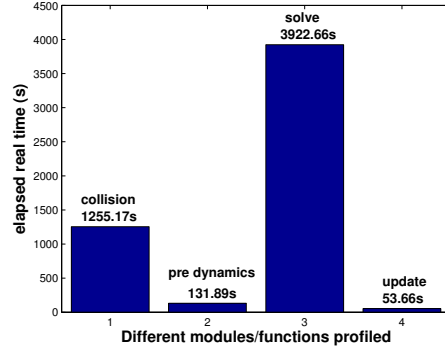
Profiling of elapsed time by each module(C++ 200 spheres)

solve
65.31s

collision
0.9s

pre dynamics
0.33s

update
0.36s

elapsed real time (s)

Different modules/functions profiled

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