Team Status Update 3#:

Week-7:

Goals:

- Alex: Implement a functional pop-up box.
- Addison: Build PyMesh and/or TetWild using CMake and convert a demo .mesh file
- Thomas: Finish my python script for generating AnisoMPM headers. Should get it to generate different chunks of code specifying different parts of the object and colliding objects.
- Chase:Get ubuntu to recognise local hard drives. Run Demos.

Set-backs:

- Chase:Errors with Cmake as well as makefiles for demos.
- Addison: changed course to focus on ideas from peer feedback
- Alex: a lot of documentation to sift through to try to determine info
- Thomas: Too much customizability in the headers that I'm trying to generate. I don't want it to require so much input that you may as well just write the entire header file manually.

Who work on what:

- Thomas: Changed my strategy for generating the headers for the demos. There was simply too much that it seemed you could customize and it was requiring way too much input. So, I boiled things down to a handful of useful parameters that always seem present and decided to make a different header generator for each type of material. That way I can just use the information about certain material types and keep things relatively simple for now.
- Addison: This week I strayed from my original goal because we got many suggestions for potential alternative mesh-editing programs from the comments on our previous status update. I got some of them installed and working, but unfortunately they were not compatible with our files so it wound up being a dead end.
- Chase: Work through an issue on Ubuntu with Jim Ward, issue was with mounting and finding the hard drives of the computer with respect to ubuntu.
- Alex: I spent most of my downtime trying to sift through documentation for anything relevant to pop-up/dialog boxes

Week-8:

Goals:

- Alex: Get functional buttons/options on the popup box.
- Addison: Use our python add-on to call PyMesh/TetWild and import an object from a .mesh

- Thomas: Work on getting Blender to call the Python script to generate headers.
- Chase:work on getting Cmake and makefiles compilers to work on ubuntu.

Set-backs:

- Chase:Cmake and makefiles compilers needed Dependencies Installation for the AnisoMPM Cmake and makefiles files.
- Addison: lots of dependencies for PyMesh, and getting each of those working

Who work on what:

- Thomas: This week, I wasn't quite done with the header generators yet. They have a pretty fair amount of demos with different materials so I've just been going through each one and making a generator for it.
- Alex: This week I downloaded a dozen add-ons to figure out how they implemented dialog boxes.
- Addison: This week I returned to the TetWild/PyMesh files, and unfortunately am still facing issues with the many dependencies. However, I am definitely getting a better handle on CMake which I've been using to make some progress.
- Chase: Reinstalled ubuntu and Dependencies. try to find a solution to the error cmake was throwing.

Week-9:

Goals:

- Alex: Get the pop-up box to accept user input, some text and some radio buttons, to allow us to set settings as needed.
- Addison: figure out adjustable variables in the original code (elasticity, etc.) and see if we can modify them without recompiling the entire project
- Thomas: Get Blender to call GenerateHeaders.py with as little effort from the end user as possible. They shouldn't have to know every detail of what input is required. Maybe they could adjust a few sliders for some variables and the rest of the input could be figured out automatically.
- Chase: work on Cmake and makefiles compilers Run Demos.

Set-backs:

- Chase:AnisoMPM command lines: are not working
  - "`Check folder Projects/anisofracture for AnisoMPM`
  - `Check folder Projects/coupling for IQ-MPM`
  - `Error is "Failed to read config, exiting"`
- Alex: Several of the mods have implemented boxes in different ways, trying to find a consistent way that works has been challenging.

Who work on what:

- Thomas: Finished up the header generators (or at least simple versions of them to start with. Still need to test them by actually running simulations to see what needs improving). Started working on figuring out how to get blender to call the header generators, but Blender hasn't been my side of the project so I'm not as familiar with it. I need a little more time to get that done.
- Alex: More looking through documentation and other mods for inspiration
- Addison: Continuing work on PyMesh with CMake, and hitting a wall with progress. Had to push back goal of adjusting texture variables
- Chase: got the Cmake and makefiles compilers to run a finish the files

Goals/ Plan for Next 3 Weeks:

Week 10:

- Chase: spring break: tried to make sure that we are able to add our own demos and files to their code in order to run their code on, look into Python scripts that can compile cmake and make files, and then run the executables
- Alex: Get that dialog box to work
- Addison: Continue PyMesh work with focus on CMake
- Thomas: Since the status update was delayed due to spring break, this week has already passed. I was doing spring break things and didn't work on much.

Week 11:

- Chase: (if Python has Compilers for cmake and make and ubuntu commands) with Python we should be able to write Scripts that will compile using cmake and makefiles, the only issue is whether or not those Python scripts can be used in a Windows device without ubuntu installed,
- Alex: User input into dialog box
- Addison: Process example .mesh files with TetWild and/or PyMesh
- Thomas: Finish getting Blender to call the header generators

Week 12:

- Chase:Use Python scripts and edited files to see if their codebase can be used without ubuntu
- Alex: Start processing user input
- Addison: call the .mesh conversion and incorporate it with Alex's blender script, and/or work on refining its user interface
- Thomas: Work with Chase on getting the simulations to run on windows so I can test the header generators and see what works well and what needs improvement.