ME Journal

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last updated: August 24, 2021

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Fall 2020

hyperref

August 20, 2021 – Reorganization and Journal Update

OBJECTIVE:

I need to establish mise en place for development of the ME. **OUTLINE:**

- Reorganize my directory, put old files in an Outdated folder.

- Restart this journal.

- Update github README.md.

- Create ModelController.py

PROCEDURE:

Should all be self explanatory.

PARAMETERS:

The point is to get ready to work without fumbling over old files or struggling to get my journal in order. The directory reorganization is pretty straight forward. Restarting this journal starts with this entry, but also organizing my journal update plan (which should be: update the journal every time you push, not commit.) I've already created ModelController.py and added the class outline to it in class form; most of the daily work from here on out will be adding classes and methods one by one, along with testing.

The README needs refactored, and some documentation should be made public. I need to decide what gets links and what, if anything, gets added to the repository directly.

OBSERVATIONS:

I did it. Needs more documentation, but I'll figure out the most useable way of handling that in the future.

DATA:

N/A

RESULTS:

I'm done enough to be ready to move on with programming next week.

Aug 21, 2021 – EdmCore and Callback Classes: step 1

OBJECTIVE:

Get started on EDMCore. See if I can get a simulation running.

OUTLINE:

- Retrieve useful code from the Log Test.

- Start filling in the methods.

- Add startup calls to the program's run routine.

PROCEDURE:

Code them.

PARAMETERS:

N/A

OBSERVATIONS:

Got it done. Everything worked smoothly. The MC is now able to initiate and run simulations from GridAPPS-D. It has the old issue where nothing stops, I'll have to hard code that in. Bigger issue: I started working with callback classes. The commands don't work. The sim runs, but nothing happens. The callbacks aren't called when expected. Need to talk to PNNL about this.

DATA:

All recorded data, or where it can be found.

RESULTS:

EDMCore is a bit more done than I was expecting, since I was able to do things like add config.txt. Callbacks are the next thing to tackle. I knew they'd be a problem, so this is fine. Consult with PNNL. Will report back in next entry.

Aug 23, 2021 – Callback Class Troubleshooting/Repair

OBJECTIVE:

TS&R Callback classes

OUTLINE:

- Contact PNNL
- Fix EdmMeasurementProcessor
- Fix EdmTimeKeeper
- Fix EdmOnClose

PROCEDURE:

Currently using the old callback functions to call the `on_message` method of each callback class. Frankly, this works perfectly well and is invisible to the user and developers in most cases. It does require function definitions and global variables and weird stuff that I'd prefer to remove. So, after contacting PNNL, figure out the issue and fix the classes.

PARAMETERS:

N/A

OBSERVATIONS:

The issue was in the way I was gathering the simulation ID. I reused code that I'd never actually USED in the old script, and this code turns out not to have been working this whole time. Turns out there's an easier way to do it anyways; I just have to start the simulation first, and then get the ID, then use that to instantiate everything. It works fine.

The EdmMeasurementProcessor works fine. The EdmTimekeeper also works fine, but differently from the old callback function: it uses a subscription to the log topic and therefore I have to filter out the messages that include timestep incrementation manually. This is done, and works more or less fine. The EdmOnClose isn't yet working since there's no obvious subscription topic for it. I may have to settle for the callback function on this one, but I'm contacting PNNL to be sure.

May be a timekeeping bug. The timestep increments before the measurement processor; but, the measurement processor uses its own timestamp anyways. Timecodes seem to be 2 off. Will need to do some rigorous testing at the end of Phase 1 to fully verify what's going on and make sure that inputs are being reflected in the outputs at the proper time (which should be the timestep after they're injected.)

DATA:

N/A

RESULTS:

EdmMeasurementProcessor and EdmTimeKeeper working as intended. EdmTimeKeeper filtering function needs cleaned up. EdmOnClose not yet implemented. Awaiting PNNL support.