

Recent Progress:

1. Added PST license from Joe Chow to code repository
2. Corrected PWRMOD handling of user defined cell states in VTS
3. Refined VTS order of operations and time vector handling/creation
4. Created MiniWECC AGC result document for P load step
5. Added handling of generator trip to AGC inertia and frequency calculations
6. Created MiniWECC AGC result document for generator trips
7. Updated PST to version 4.0.0-a4
8. GitHub updated:
<https://github.com/thadhaines/MT-Tech-SET0>
9. Employment “good” till 09/18/20

Current Tasks:

1. Create long term event (with pwrmod)
2. Work towards PST 4.0.0:
 - Verify and Validate operation of AGC, PWRMOD, IVMMOD, and VTS.
 - Refine documentation
 - Clean up examples
 - Clean up code comments
 - Clean up readme files
3. Work on understanding PST operation
4. Document findings of PST functionality
5. Investigate Octave compatibility

Action Items From Sandia:

- Run long term simulation to show benefits of VTS.

Coding Thoughts:

1. Rework how switching & perturbation events are handled into a more flexible and general format. (flags? objects?)
2. Generate comparison scripts to verify simulated results match between code reversions and modifications.

Current Questions:

1. Play in data for variable solar irradiance? (Slow Sine with step events for clouds.)

Loose ends:

1. As infinite buses don't seem to be used in dynamic simulation, they were not converted to use the global g.
2. `tgh` model not converted for use with global g. (no examples of `tgh gov`)
3. In original (and current) `s_simu`, the global `tap` value associated with HVDC is over-written with a value used to compute line current multiple times. It probably shouldn't be.
4. Constant Power or Current loads seem to require a portion of constant Impedance.
5. PSS design functionality not explored
6. No examples of of delta P omega filter or user defined damping controls for SVC and TCSC models
7. Differences in `mac_ind` between pst 2 and 3 seem backward compatible - untested.