

Recent Progress:

1. Added zeroing of derivatives for tripped machines to improve VTS performance.
2. Updated PST versioning document.
3. FTS \rightarrow VTS seems okay
VTS \rightarrow FTS may have minor issues
4. Added capacity tracking to AGC
5. Added interchange modulation capabilities and created associated use case document/code example.
6. Updated PST to version 4.0.0-a7
7. miniWECC 3 area à la EIA regions
8. GitHub updated:
<https://github.com/thadhaines/MT-Tech-SET0>

Current Tasks:

1. update AGC docs to include `icAdj`
2. Create extended term event with `pwrmod` and `miniWECC`
 - miniWECC
 - Rolling blackouts in CA
 - High PV penetration
 - Drought has led to lower hydro output
 - initial Low N \rightarrow S Flows
 - Solar decline as load increases
 - inadequate dispatchable generation
 - Leads to Large N \rightarrow S Flows
 - EIA data from 8/14/20 18:00?
3. 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
4. Work on understanding PST operation
5. Document findings of PST functionality
6. Investigate Octave compatibility

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.