

Profile Advance/ Transport/Equilibrium

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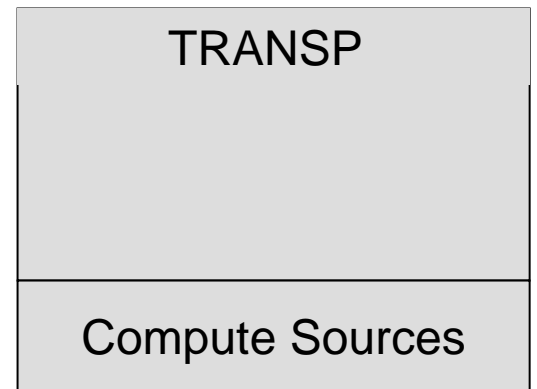
PPPL

SWIM Workshop

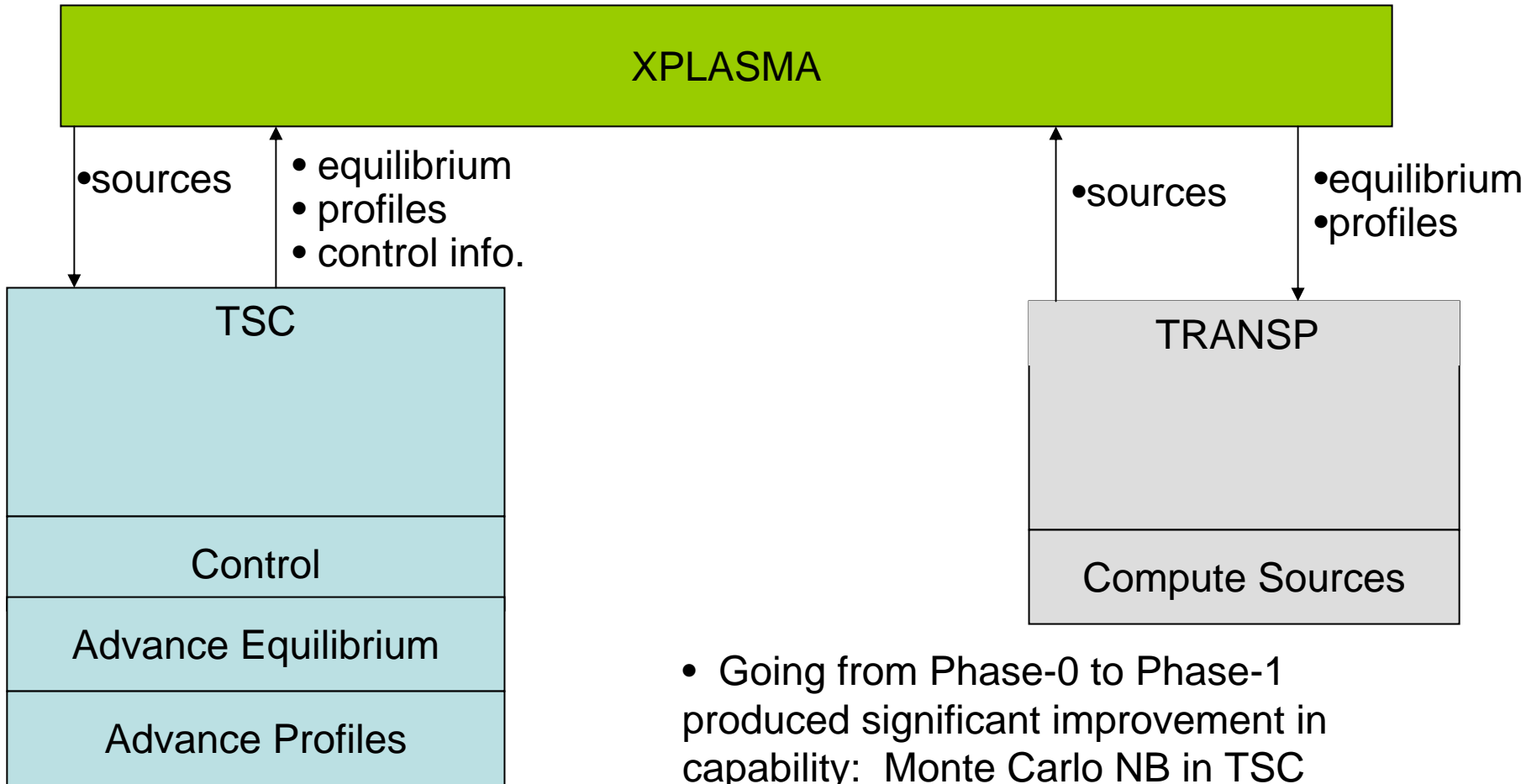
Sept. 25-27

Indiana U.

Phase-0



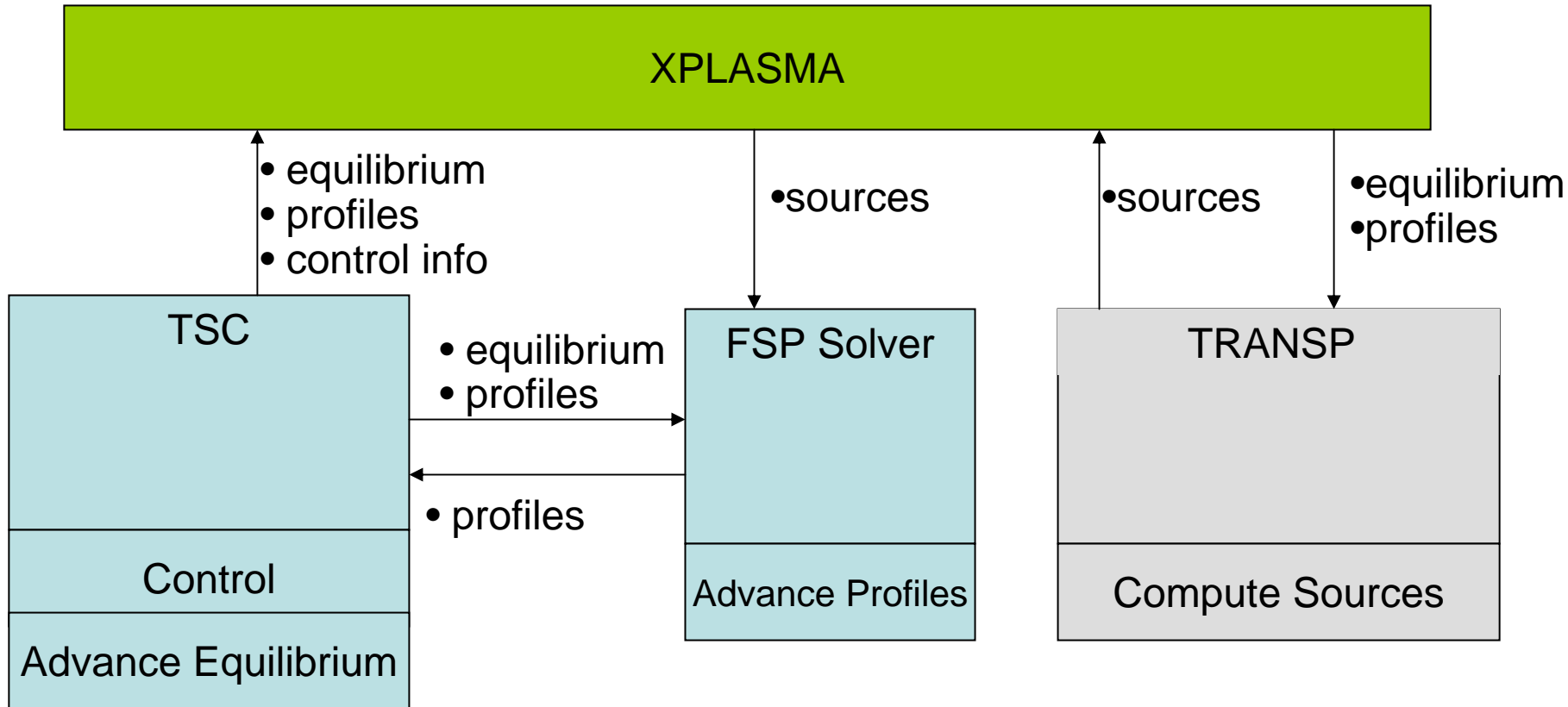
Phase-1



- Going from Phase-0 to Phase-1 produced significant improvement in capability: Monte Carlo NB in TSC

NOTE: writing XPLASMA file every timestep is a big hit on time: 4 min → 40 min !!

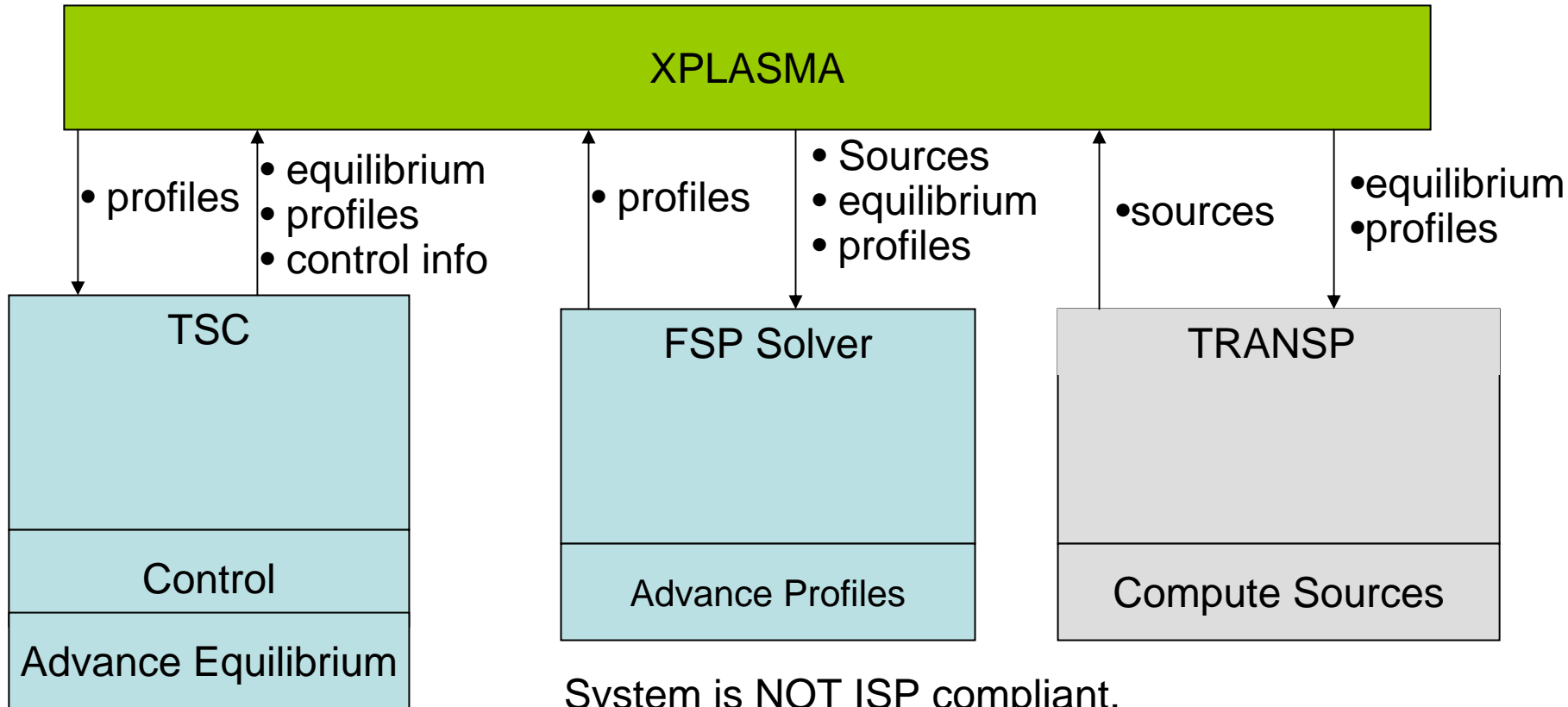
Phase-2 (FSP solver in TSC mode)



3 executables:

Each executable is in “sleep state” until a particular file appears. Better way?

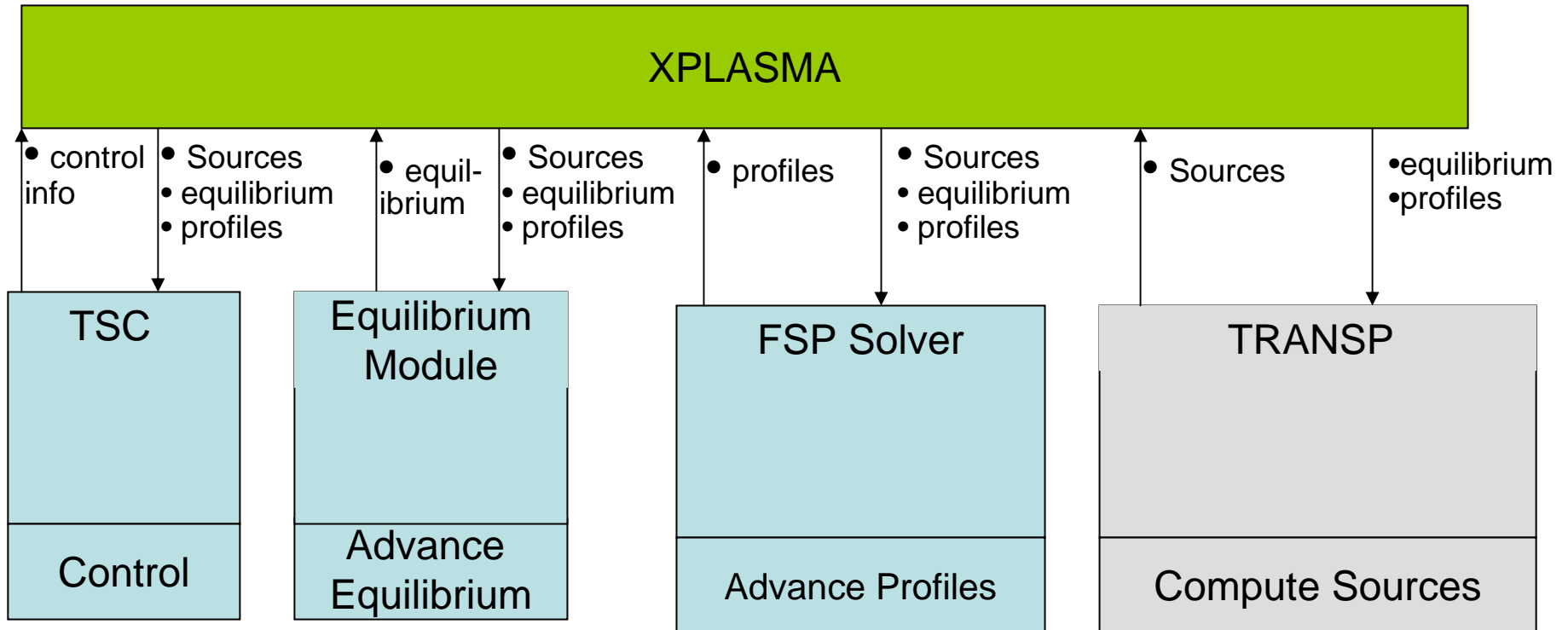
Phase-3 (FSP solver in XPLASMA mode)



System is NOT ISP compliant.

- Solver directly interacts with XPLASMA
- no Python wrapper
- Does not yet have GCNM option
- Unacceptable performance hits

Phase-4??? (not yet done)



Issues:

- Performance
- Python wrapper ??
- GCNM and TEQ options