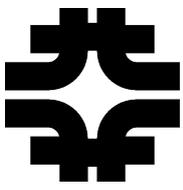


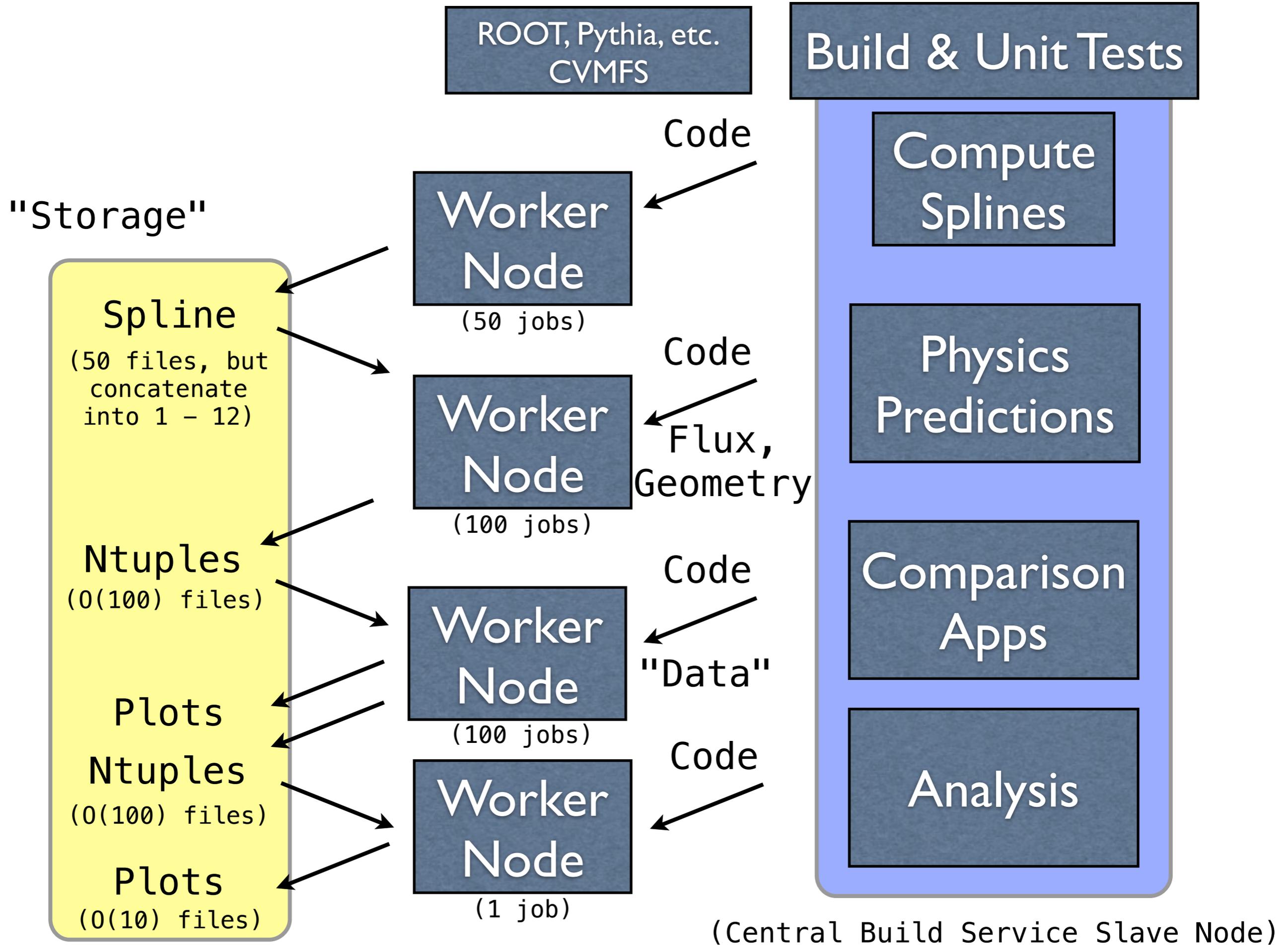
GENIE Automated Validation / Tuning

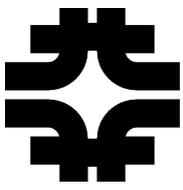
Gabriel Perdue
2014/December/10



Scripting Framework

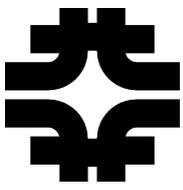
- Six Stages:
 - Build
 - Unit Tests (Eventually)
 - Generate Cross Sections (In: NA; Out: XML)
 - Generate Physics Predictions (In: XML, Geometry, Flux; Out: ROOT Ntuples)
 - Run Data/MC Comparison Apps (In ROOT Ntuples; Out ROOT Ntuples, PDFs)
 - Compare outputs to previous data/MC comparisons / Study global behavior (In ROOT Ntuples; Out ROOT Ntuples, PDFs)
- Each step depends on the previous step succeeding.
- We plan on using the Central Build Service to coordinate the flow from one stage to the next, but each stage will have its own script.





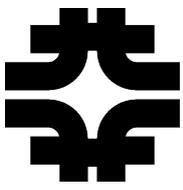
All My Concerns

- Job control logic (next slide)
- How to take full advantage of CVMFS?
- How to deploy the builds?
- How to utilize SAM?
- How to utilize FTS?
- How to work with files interactively (XR00TD)?



Job Control Logic Concerns Only

- How much of a role should Jenkins play?
- Simplest version (can always get fancy later):
 - GENIE is much simpler than CMS. Each complete physics pass will probably be ~200 jobs ($\sim 50 + \sim 50 + \sim 100 + n < 10$). The most valuable thing would be to finish all 200 quickly (the first stage will take the longest).
 - How to resubmit jobs X times for stage N and finish all jobs before moving to stage $N+1$?



How to start?

- Is the most useful thing a set of requirements?
 - Or a starting workflow, run by hand?
 - Or something else?