

Special Assignment RunII/SAM

Where and Why:
5 Weeks From End of Assignment

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Special Assignment

Started February 14th, 2005

End Date September 30th, 2005

Specific list of goals – prioritize

Some goals no longer relevant now

Some “Successes” but nothing “Complete” so far

CDF SAM Raw Data Declares

- Where
 - In production for many months
 - Using remote command invocations
 - Predator still used as safety net and still needed
- Why
 - Priority was getting something there
 - Meta files must be transferred to declare: hardware configuration issue
 - CAF and Farms priorities and need for attention

CDF SAM Farm Deployment

- Where
 - Phase II in **production** in June/July earlier “v6” SAM code
 - Not quite “robust”: db server **restart/4 hours**
 - Starting to see fraying on the edges (inefficiencies, problems)?
 - Not yet the level of activity expected (factor of ~1.6 soon?)
- Why
 - **Experiment push** to get it working
 - Work around(s) sufficient for **interim** performance
 - Upgrade path has a **high threshold**

CDF SAM Offsite Use Robust

- Where
 - INFN using a hybrid version with some issues (pointed at latest “v7”)
 - Most sites at earlier “v6” version with known issues
- Why
 - INFN made noise
 - Stop gap measure provided
 - No push to complete the testing of new versions
 - Lower perceived priority than the CAF User Analysis

Real User Analysis Using SAM on the Fermilab CAF

- Where
 - Earlier “v7” available for experts
 - Latest version “2 weeks away” from deployment
- Why
 - Missed testing opportunities: lack of urgency meant missed opportunities
 - Trade offs: wait for latest tweak if possible before upgrade
 - Lack of documentation: plans/metrics for tests
 - Lack of push from experiment

Issue: Lack of Urgency

“Feels like an institution and not a deployment.”

Deployments have a goal of ending, institutions perpetuate themselves. General feeling like this has been going on forever and will continue forever. Things will get done when they do, no sense of, or need for, planning, or attacking problems aggressively (complacency). Not a lack of personnel on the SAM team.

Issue: Lack of Test Plans

Lack of documented tests/metrics

As of late August, **no documents** one could hold that **outline validating SAM** software for production use. SAM Project has started to address this in the past month (**draft started**), I haven't seen the same from the experiment side. This is an **ongoing issue** dating back to April or earlier.

Issue: Lack of Update Criteria

Lack of documented threshold for updating

Lack of documented criteria for determining what qualifies as a significant enough improvement to merit upgrade on the experiment side. How does this work with a rolling deployment? This is a new issue.

Issue: Loss of SAM Experts

Losing two SAM team members

Lost one about one week ago, another later this week. May have an impact on future, but **not relevant for past or current status.**

This is a potentially a new issue.

Prospects: Raw Data Declares

- Likely to run as is for a while
 - Meta files created and declared from different machines
 - Hardware changes, IRIX build of SAM products, or re-write of scripts to use remote server model.
 - Experiment side driven but no real call at the moment
 - Predator will need to remain running
 - Support will be a load on manpower
 - No known plans yet

Prospects: CDF SAM Farms

- Likely to run as is for a while
 - Working even if not elegantly
 - Not yet up to expected speed – could impact prospects
 - **Known** performance and reliability **issues** with version used
 - Users **perceive** most problems as SAM, accurate or not (**past weekend**)
 - Users may **not mitigate** as suggested
 - High, but not known, **threshold** for allowing upgrade
 - Support may be a load on manpower
 - Need to see CAF shakedown first

Prospects: Offsite Use Robust

- Likely to run as is for a while
 - Sites **not at the same version** (INFN has special **hybrid**). But could change this week?
 - Successful CAF experience could spur more widespread action to upgrade and unify
 - **Known** performance and reliability **issues** with version used
 - Unknown (to me) **threshold** for allowing upgrade
 - Support may be a load on manpower
 - Need to see CAF shakedown first from a focused effort point of view
 - Help requests may flood in as demand rises

Prospects: CAF User Analysis

- No clear idea when this will complete
 - Tentative plan to upgrade in two weeks (September 15th), but validated for just read only use case
 - Staged deployment but high threshold for allowing upgrades (could be a conflict)
 - Potential issues for other use cases could have negative impact on the whole system
 - “Submarine” user demands could create needless crises if process to completion is too slow (e.g. data challenges)
 - Experiment has been and will likely continue to drive the pace

Next 5 Weeks

- Continue to request planning documentation
- Continue to push completion of tests
- Review activities since February 14th in preparation for writing a final report.
- Consult with Run II department management on transition of effort.
- May defer writing of report until after September 30th depending on circumstances.
 - I will brief Vicky and Amber separately on the report once it is complete