SAM for NOvA

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# Introduction

What are the NOvA specific tasks and actions that need to happen for NOvA to use the new IF data handling system.

At this time, the following is in progress

* Raw data are cataloged and uploaded to SAM to tape and Bluearc via FTS. Files to tape are handled by enstore small files aggregation. This activity is in production.
* Cataloged Monte Carlo into SAM – this task is still in development. The metadata is not complete and not integrated with ART.
* Reco production metadata is still in development. Reco data is derived from Raw or MC, and so the ART support is necessary to inherit the Metadata. So files are cataloged into SAM, but the metadata is incomplete

Adoption of enstore small file aggregation is automatic since NOvA uses the FTS.

# Tasks

## Using SAM to retrieve data into jobs

This activity involves integrating SAM and ART and inheriting the metadata. In addition the job wrapper work is necessary. This task is coupled to external projects.

## NOvA specific metadata

We should look into if the work here is applicable to other experiments. This activity involves the database side car – a new schema and set of tables. Also requires new methods to declare and retrieve this metadata, though much can be done with the existing schema. People: Robert, Andrew, Marc, NOvA rep (Jarek or Craig), DBAs. Duration: 3 months. Start: June

## Integrating with the NOvA production scripts

Depends on ART and jobsub integration projects. Benefit is simpler NOvA production. Automate dataset definition creation. We will have to help NOvA with their production scripts. People: Andrew, Mike. Duration: 1 month. Start: June

## Restore old small files

The legacy small files are still on disk and need to be re-stored. People: Robert. Duration: 5 minutes of work + 1 week of transfer time. Start: end of May

## Determine the job output file handling

Part of the ART integration project

# Milestones

## Run IF DH integrated with ART for production jobs

Run real production jobs with the full IF DH system – End of August

## Deploy Offline FTS

Deploy the FTS system for file uploads to SAM for Offline files. – Mid May

# Risk

## Dependent projects are late

Many projects have to complete for NOvA to meet the projection job milestone (e.g. ART & SAM Integration). If these projects are late, the milestone will be delayed.

# Conclusion

At the end of this project, NOvA will have fully migrated their data handling to IF DH and SAM.