

Live Notes

Meeting EPIC CompSoft and SimQA Meeting

Date December 14 2022

Agenda <https://indico.bnl.gov/event/17952/>

Minutes

Attendance: 12. Bill, David, Markus, John, Kong, Brian, Kong Matt, Francesco, Sylvester, Cris Fenelli, Chris Dilk

Increased to 15 half wat through.

Item 1: Simulation Campaign Status (by Wouter):

Summary: latest data are available on S3. New S3 mounting location mount point on SDCC, Job number count exceed 150k. Job failing due to new mounting point.

- Exclusive groups needs generate input files in HepMC3 format.

Comment Stability:

- JLab xrootd works as expected. S3: 80Mb/s seems to be stable.
- 1% job failure rate: due to handshake, small overlap issue, recurring seg fault, timeout. OSG is looking into it.

S3 issue (Sylvester): S3 Thanksgiving crash; interruption due to lack of support; switching to new server.

Plan future:

From this campaign: 79900 core hour, 91 core year.

Large campaign very year, small campaign very quarter. No due configuration campaign starting April 2023.

Q&A:

Sylvester: Stress test? not sure.

Francesco: files versioning and being overwritten? Listing the version of EICrecon in the future in addition as potential solution. Additional comment, S3 save the older version of file instead of directly replacing.

Kolja: How much room needed on S3? We are not at the limit.

Kolja: PANDA submission system? Possible but required further discussion.

Item 2: Software (specifically reconstruction Software)

Recap from previous meeting:

- David EICrecon refactoring;
- Sylvester on experiment independent algorithm.

State of principle: SP3, SP4, SP7 is reminded. Wider community involvement.

Decision? No, explore further into algorithm. Prototype of algorithm in Jana2 is needed.

Lesson learned so far:

Guidelines on source code management required further discussion.

Question about lisencing:

Topic of further discussion. Choice of lisencing.

Sylvester: Algorithm and Unit guideline:

Initial tasks required discussion with Dimitri (currently on holiday). David offered to help as point of contact as Jana2 expert.

Answer/decision (Jana2 algorithm prototype) should be ready by the Collaboration meeting.

New tutorial for the algorithm

Item 3: Unit Policy (Sylvester)

[EPIC Software Policies: Units \(DRAFT\)](#)

We need consistent unit police to save time.

Data format EDM4hep:

- mm, ns, GeV, rad

Geometry DD4Hep:

- cm, s, GeV, rad

Reconstruction EICRecon:

- not standardized

Goal: consistent.

Recommandation: Adopt data-driven EDM4hep unit. Values stored in external libraries (DD4Hep) must be converted into the standard unit.

Any diviation: requires very good reason.

Markus: Share the recommandation to the EPIC mailing list for comments and adoption

Wouter: Unit become an issue when the python wrapper layer is added, when is this temporary python layer is removed ? (Question to David)

David: requires input from Dmitri.

Issue: currently not convenient to work with this python layer on unit specification.

