

Computing & Software / Simulation, Production & QA

Weekly CompSW meetings:

- <https://indico.bnl.gov/category/410/>
- **Wednesdays 11am EDT**

Weekly SimQA meetings:

- <https://indico.bnl.gov/category/416/>
 - And subcategories for fun4all and dd4hep office hours
- **Thursdays 2pm EDT**

Today's brief topics:

1. Single software stack decision path
2. Overview of submitted simulation requests
3. Tentative timeline for detector configuration inclusion in simulations

Computing & Software: Software Stack Decisions

Month	Day	Topic	Details
May	4	AIWG	
	11	Transition Period	Present procedure. Decide on list and order of decision topics
	18	No meeting (Streaming Readout X Workshop)	
	25	Code Repository	Repository: - Location (GitHub, GitLab+Host) - Admins - Access
Jun	1	Discussion Schedule	Schedule: - Decide most critical decisions to make before July 27th EICUG meeting - Schedule of topic discussions
	8	Geometry	Geometry: - Package (e.g. DD4HEP)
	15	Data Model	Data format - Generated events - Simulated data - Processed data (e.g. ROOT w/ specific tree format)
	22	Data Model	
	29	Reconstruction Framework	Reconstruction Framework - Package
Jul	6	Reconstruction Framework	
	13	Data and Analysis preservation	Data Preservation - What is preserved (simulated, DSTs, ...) - Location(s) - Access (S3, xrootd, rucio, ...)
	20	Documentation	Documentation: - Location of User documentation (wiki, repository,...) - Who will set up skeleton with list of topics (e.g. "Getting Started")
	27	EICUG Meeting	
Aug	3	Continuous Integration	Continuous Integration
	10	Containerization Official builds	Containerization - platform (Singularity, Docker, multi, ...) - Supported OSES - Location of images (e.g. cvmfs) Official builds - Location (e.g. cvmfs, container image, ...)
	17	Calibration DB Conditions DB	Calibration / Conditions DBs - Package - Server/Host - Access
	24	Calibration DB Conditions DB	
	31	Distributed Campaign Workflow	Distributed Campaign Workflow - Package (DIRAC, PanDA, STAR(?), ...)

Schedule [\[link\]](#)

- May 25: Code Repository
 - Convener Summary: “hybrid solution that uses GitHub as the primary repository, while using the eicweb GitLab instance for CI/CD”
- June 8: Geometry
 - Evaluation underway
- June 15: Data Model
- June 29: Reconstruction Framework
- ...

2022-Q3 Resource Requests (June-September)

- **Inclusive**

- Djangoh ep NC for 5x41, 18x275; ed 10x100; Q2 > 1, 2, 10, 50, 100, 500, 1000

- **SIDIS**

- Pythia6 ep for 5x41, 10x100, ~~18x100~~10x275, 18x275; all, $1 < Q2 < 100$, $100 < Q2$ (varying number of events, 1M to 20M)
- Pythia6 with/without IFS/FSR, settings as above, but lowest/highest energies only (similar number of events)
- Lambda generator (2M)

- **Jets/HF**

- Pythia8 ep NC for 5M each in 5x41, 10x100, 18x275; Q2 > 1, 10, 100
- Pythia8 ep CC for 5M each in 5x41, 10x100, 18x275; Q2 > 100

- **EW/BSM**

- Djangoh/Pythia8 CC-DIS 18x275, 10x275, 10x100, Q2 > 100; dedicated sample with charm
- LQGENEP

- **Exclusive (TBC)**

- Long list of exclusive channels: Sartre, Beagle, EPIC, eStarLight, IAger, TOPEG, DEMPgen

Timeline for Detector Configuration Inclusion

Item	Task	Date
1	Acquire PWG physics/event requirements	June 2022
2	Aggregate and divide up the requirements for processing	June 2022
3	First simulation campaign - June-July 2022 Concept	June-July 2022
	Geometry/reconstruction feature freeze	June 24
	Bug fixing and benchmarking sprint	June 24-July 1
	Full simulation freeze and tag	July 1
4	Collaboration formation initiated (expected)	July 2022
5	Common Software Framework pieces decided on	August 2022
6	Develop common job submission framework	August 2022
7	Second Simulation Campaign, October 2022 Concept	November 2022
8	Third Simulation Campaign, January 2023 Concept	February 2023

Software & Simulation Office Hours

- **DD4hep-based software stack:**
Monday, Friday, 2pm EDT
Wednesday, 2pm ⇌ 9pm EDT
- **Fun4all-based software stack:**
Tuesday, 3pm ⇌ 8:30pm EDT

