

ePIC, sPHENIX and STAR Collaborative Tools

Strawman proposal on next steps

June 29, 2026

Several discussions and presentations have been held on the development, maintenance and long-term support of collaborative tools for RHIC and EIC experiments, including a technical meeting on 17 June at BNL. The vision, status and requirements of the experiments, core software developers and BNL Program Development funded project leads were presented. A variety of tools and software developed over several decades, as well as more recent software, were discussed. A follow-up discussion was held between the leadership teams of BNL NPPS and SCDF, during which we identified two software packages, namely CRISP (also known as the phonebook or membership database) and Invenio RDM, as potential services and products to be centrally supported for the RHIC and EIC experiments. We propose a two-phase process for transitioning from the current status of the software to a service centrally supported and run.

Phase I: July 2026 onwards, for two to three months.

1. **Software stack.** Assess the readiness of the existing software stack to be to "packaged and deployed using DevOps practices (continuous integration (CI), automated testing, and reproducible deployment), including automatic builds and tests of new software releases to ensure stability.
 - a. Assess the modularity of the software stack and the specific dependencies of the experiments.
2. **Resources and efforts.** Assess the short-term and long-term resources and efforts required for the deployment of the above software stack to run as a service.
3. **Phase I report and Phase II milestones.** A report should be submitted by no later than **September 30, 2026**.
 - a. Progress at the intermediate stage will be reviewed every two weeks at collaborative tools project meetings.
 - b. Develop Phase II milestones and implementation plan

The results of Phase I will be reviewed and discussed alongside the experiments in October. If the software stack is deemed ready for use as a service, the proposed Phase II plan and milestones will be discussed and the second phase of the project will begin.

Phase II: October 2026 onwards, for six months.

1. Packaging of software stacks and continuous integration.
2. Production deployment and infrastructure setup, user documentation and/or an Operations Handbook, integration of central authentication and security reviews
3. Develop monitoring and dashboards.

The Phase I effort is estimated at 0.5 FTE for three months and will be supported by PD project and RHIC NP funds (no additional funding is required). As a result of Phase I, we expect to have an additional 1–2 people with knowledge of the current software stack who will contribute to Phase II and the core software development.