Software documentation and the EICUG website maintenance

BNL EIC Group Weekly Meeting

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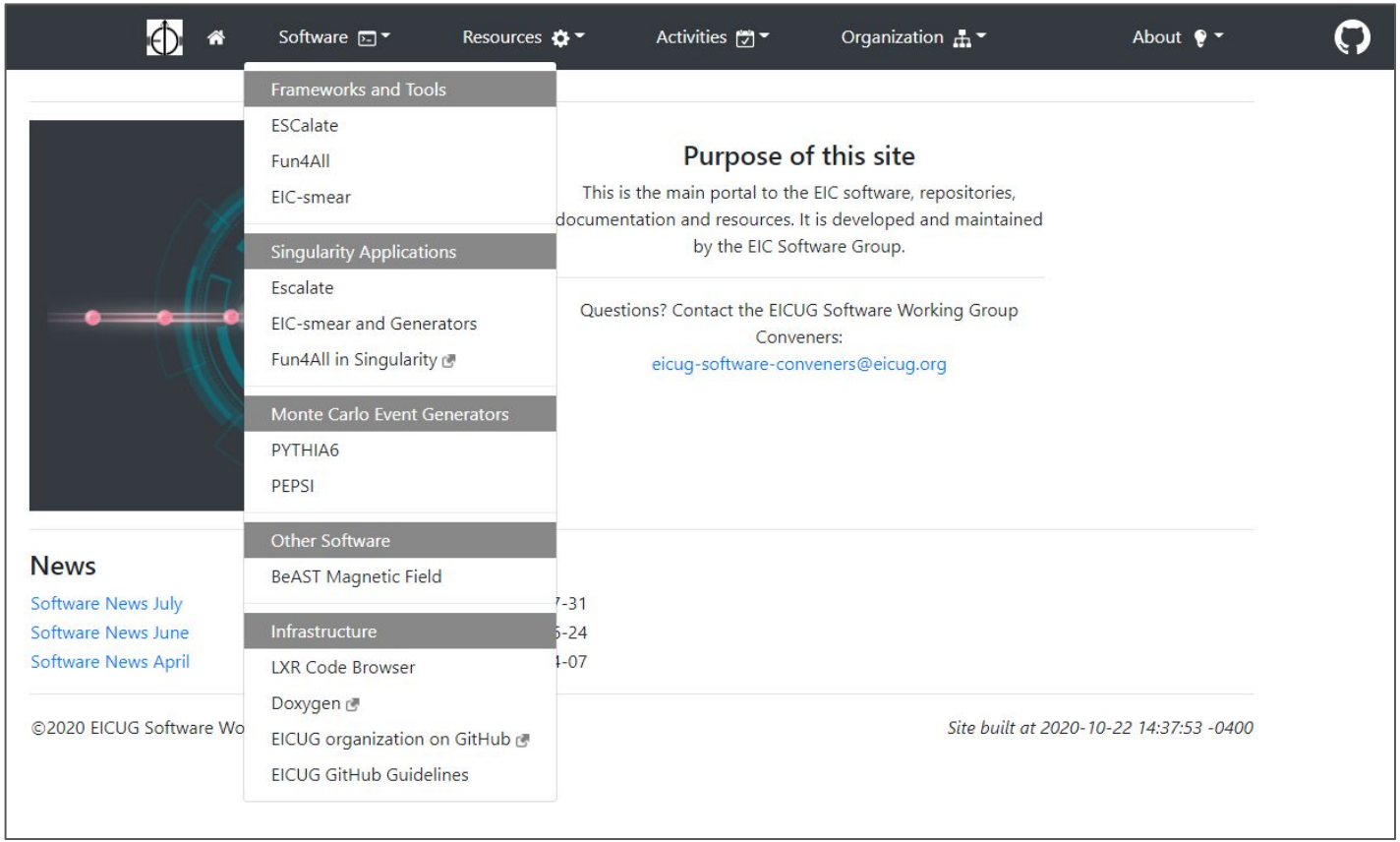
The EICUG Website (Drupal) - tech work ahead

- http://www.eicug.org/web/ hosted by BlueHost
- Platforms updates (e.g. PHP) are enforced by the hosting company
  - Which often trigger a necessary Drupal upgrade/update
- Recently updated to PHP 7.2 (since 7.4 produced errors)
- Drupal/PHP version compatibility matrix is not very friendly
- Migration from D7 to D8 is not simple ...stay tuned
- The best long-term solution would be migration to the platform used by the Software Group: https://eic.github.io/
- It's great, secure, fast and maintenance-free but takes away the WYSIWYG editor for the most part… so it's "just a thought"

Software documentation (EICUG Software website)

https://eic.github.io/



The EICUG Software website status

- It’s been active for a few months now
  - Stable platform, with the content being continuously developed (of course)
  - Superior to Drupal or Wiki for software documentation
  - A community-wide resource, fosters common development (with JLab and others)
- Content is being migrated from other sources, including the BNL Wiki
  - Contingent on the available effort (it does require work)
  - Items already migrated from the Wiki are linked to pages on the new site
- Examples:
  - Pythia, PEPSI
  - Candidate: BeAGLE
- If some of the material becomes less relevant or needs an update, the migration is an excellent way to do that and a checkpoint
- The new web platform comes with solid version control (GitHub)
- Ideally the documentation is not fragmented (Wiki vs something else)

Wiki: the Simulations page

Simulations

The EIC task force has a large number of simulation tools available for investigating different types of physics processes. Unless noted otherwise, these can be accessed from /afs/rhic.bnl.gov/eic/PACKAGES.

Contents [hide]

Event Generators

The following event generators are currently available:

- ep
  - DJANGOH: (un)polarised DIS generator with QED and QCD radiative effects for NC and CC events.
  - MILOU: A generator for deeply virtual Compton scattering (DVCS), the Bethe-Heitler process and their interference.
  - PYTHIA: A general-purpose high energy physics event generator.
  - PEPSI: A generator for polarised leptoproduction.
  - RAPGAP: A generator for deeply inelastic scattering (DIS) and diffractive $e + p$ events.
- eA
  - BeAGLE: Benchmark eA Generator for LEptoproduction - a generator to simulate ep/eA DIS events including nuclear shadowing effects (based on DPMJetHybrid)
  - eSTARlight: Monte Carlo that simulates coherent vector meson photo- and electro-production in electron-ion collisions.

Zenodo

- For a general overview of Zenodo in one of our weekly meetings see: https://indico.bnl.gov/event/8667/
- The BNL instance has been online for ~3 months
- https://eic-zenodo.sdcc.bnl.gov
- You need a BNL (or another federated CILogon-enabled) account to upload
  - https://indico.bnl.gov/event/8776/
- For technical and policy reasons, we can't manage a "community" (i.e. a curated collection of EIC materials) on that service
- No real DOIs at BNL but you can still share a link
- Keywords make a world of difference (compared to DocDB, Dropbox etc)
- Contact Jerome and Carlos for more detail... and try some real world uploads useful for your work

Recent HEPData@RHIC developments

- STAR has been a prolific HEPData contributor for a long time
- A more focused effort in PHENIX in the past 6 months, good progress
- A RHIC-wide workshop: https://indico.bnl.gov/event/8843/overview
- If you have a paper in the pipeline and would like to preserve data used in plots (in a downloadable format) please talk to me
  - A good thing to do from many viewpoints: discoverability, preservation, PR, agency reviews
  - Will have to adopt this practice in the long term anyway
  - An INSPIRE ID is required

Summary

- The EICUG website upkeep will take effort
  - Can change the platform but switch is not likely
- Migration of software documentation from the BNL Wiki to the EICUG software website started, what are the expectations, requirements, plans?
- Zenodo instance at BNL is available for use, with a few minor caveats
- HEPData - used in STAR and PHENIX, any interest in the group?